

THIRTIETH
ANNUAL REPORT

OF THE

MANAGERS

OF THE

STATE LUNATIC ASYLUM,

Utica, N. Y.,

FOR THE YEAR 1872.

TRANSMITTED TO THE LEGISLATURE MARCH 20, 1873.



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STATE OF NEW YORK.

No. 62.

I N S E N A T E ,

March 20, 1873.

THIRTIETH ANNUAL REPORT

OF THE

MANAGERS OF THE STATE LUNATIC ASYLUM.

UTICA, *March* 10, 1873.

To the Hon. JOHN C. ROBINSON,

President of the Senate:

SIR.—We submit herewith the annual report of the Managers of the State Lunatic Asylum.

With great respect,

SAMUEL CAMPBELL.

FRANCIS KERNAN.

A. S. JOHNSON.

J. McQUADE.

S. O. VANDERPOEL.

P. CLOHER.

T. POMEROY.

G. B. ANDERSON.

J. WATSON WILLIAMS.

OFFICERS OF THE ASYLUM.

MANAGERS.

| | |
|-----------------------------|----------------|
| SAMUEL CAMPBELL | WHITESTOWN. |
| FRANCIS KERNAN..... | UTICA. |
| S. O. VANDERPOEL, M. D..... | TOMPKINSVILLE. |
| J. WATSON WILLIAMS | UTICA. |
| ALEXANDER S. JOHNSON..... | UTICA. |
| THEODORE POMEROY..... | UTICA. |
| JAMES McQUADE | UTICA. |
| GEORGE B. ANDERSON..... | BOONVILLE. |
| PETER CLOGHER..... | UTICA. |

TREASURER.

| | |
|------------------------|--------|
| EDMUND A. WETMORE..... | UTICA. |
|------------------------|--------|

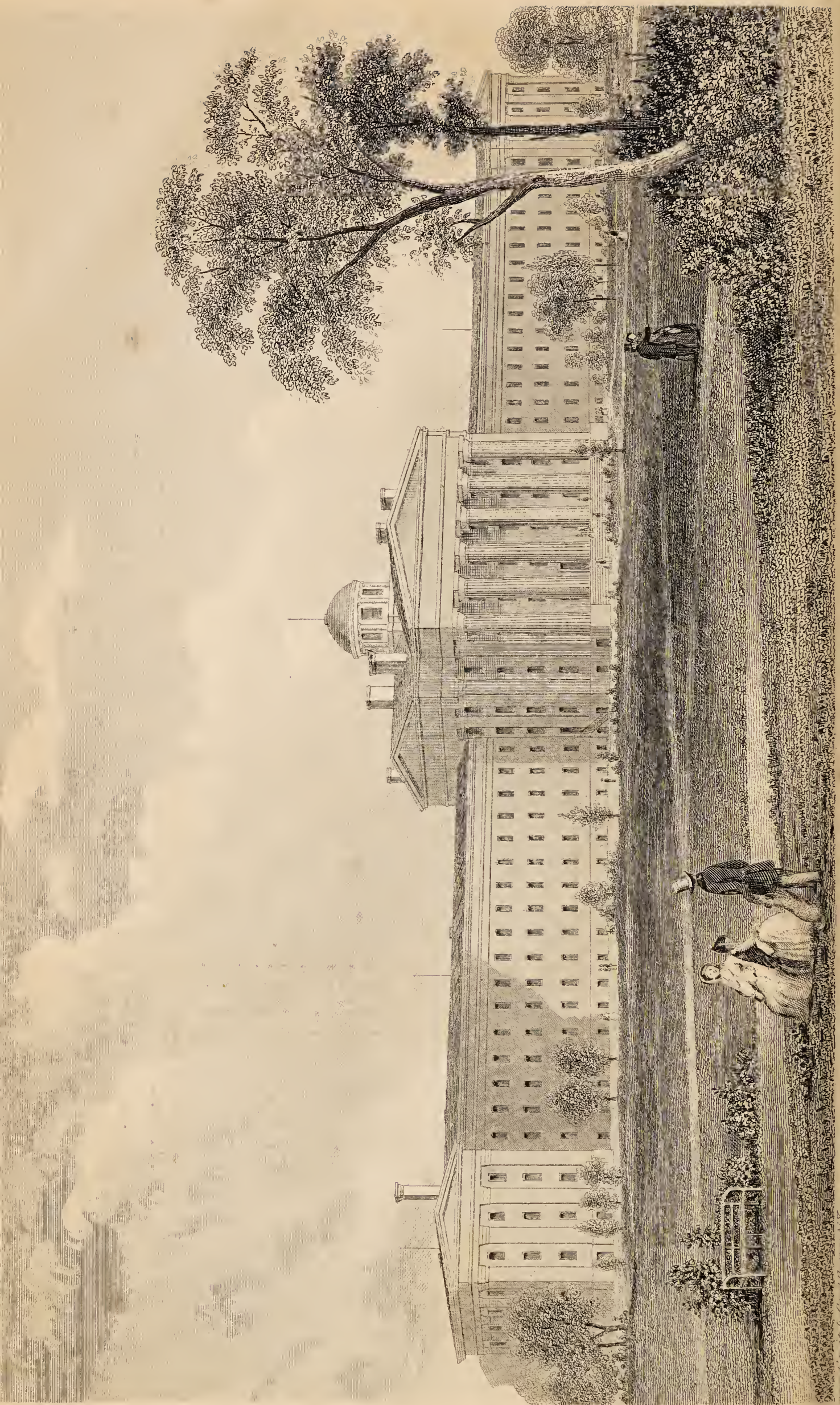
RESIDENT OFFICERS.

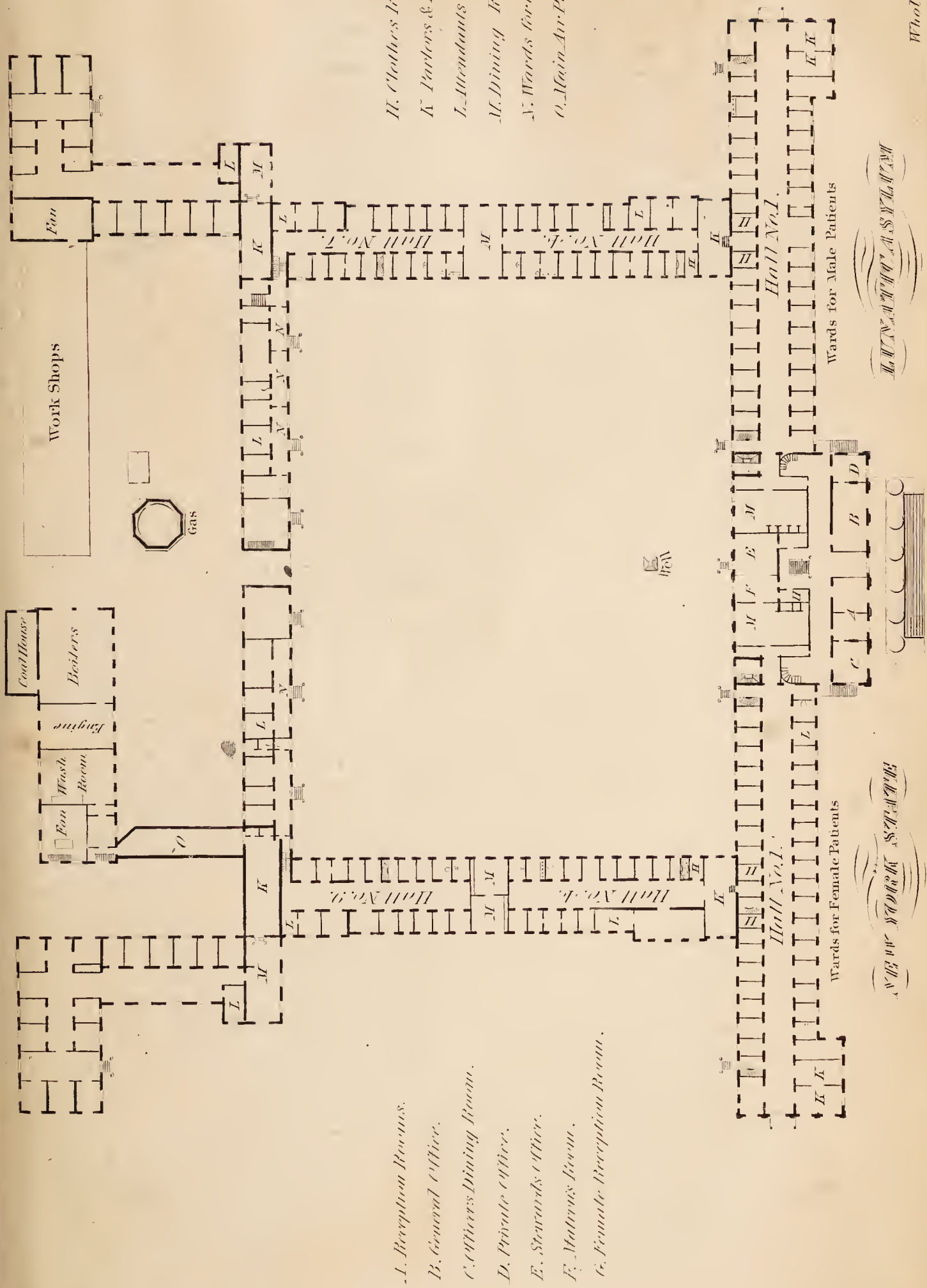
| | |
|------------------------------|------------------------------|
| JOHN P. GRAY, M. D..... | SUPERINTENDENT AND PHYSICIAN |
| JUDSON B. ANDREWS, M. D..... | FIRST ASSISTANT PHYSICIAN. |
| WALTER KEMPSTER, M. D..... | SECOND ASSISTANT PHYSICIAN |
| DANIEL H. KITCHEN, M. D..... | THIRD ASSISTANT PHYSICIAN. |
| EDWARD R. HUN, M. D..... | SPECIAL PATHOLOGIST. |
| HORATIO N. DRYER..... | STEWARD. |
| EMMA BARKER.... | MATRON. |

CHAPLAIN.

| | |
|------------------------------|--------|
| REV. W. T. GIBSON, D. D..... | UTICA. |
|------------------------------|--------|








A. Reception Room.
 B. General Office.
 C. Officers Dining Room.
 D. Private Office.
 E. Stewards Office.
 F. Matrons Room.
 G. Female Reception Room.

H. Clothes Room.
 K. Parlors & Day Rooms.
 L. Attendants Rooms.
 M. Dining Rooms.
 N. Wards for the sick.
 O. Main Air Passage.

Whole front 550 feet



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THIRTIETH ANNUAL REPORT

OF THE

MANAGERS OF THE STATE LUNATIC ASYLUM FOR THE
YEAR ENDING THE 30TH DAY OF NOVEMBER, A. D. 1872.

The Managers of the State Lunatic Asylum present to the Legislature their report for the year 1872, together with the annual reports of the treasurer, and of the Superintendent.

On the 1st of December, 1871, there were 583 patients in the asylum. During the year ending the 30th of November, 1872, there were admitted 399. The whole number under treatment during the year was 982, of which number 142 were discharged recovered, 73 improved, 156 unimproved, 14 as not insane and 62 died. The per centage of recoveries was 35.59. The whole number of patients admitted since the first opening of the asylum is 10,621, of which 4,035 recovered, and 1,627 were discharged improved, showing an average recovery or improvement of more than one-half.

In their report last year, the Managers, as had already been done in 1866, called the attention of the Legislature to the decaying condition of the street fences about the asylum grounds. They stated that the probable expense of the necessary repairs would be about \$15,000. This estimate was founded upon the cost of materials then current. Since then a large advance has been made in the price of iron, and it will be necessary to add nearly a quarter of the estimated cost to

that estimate. The urgency of doing something for the security of the premises is so imminent that further delay will cause serious inconvenience and damage to property. The Managers, therefore, deem it their duty to be somewhat importunate, and respectfully urge the subject afresh upon the attention of the Legislature.

The hospital accommodations of the asylum, and the dining rooms for the disturbed class of patients, have never been sufficient or commodious. The most extreme and painful cases of sickness or accident have no suitable place of retirement from the crowd and interruptions of the wards, where they are not only annoyed, but are the cause of annoyance. The dining rooms were originally made of small dimensions, on the supposition that a large part of the disturbed class of inmates would not be able to associate with the others at meals. Experience, however, has shown that with few exceptions all the inmates may take their meals together at common tables, which is the most desirable way, in every aspect of order, management and economy. The dining rooms may be conveniently enlarged by lateral extensions on the rear wings. Suitable hospital accommodations may be economically provided by a few appendages to the main buildings. In connection with these improvements, there is also a great need of additional verandas or exercising and day rooms for the use of the more disturbed patients. Careful estimates of the expense attending such additions and alterations show that the hospitals and dining rooms proposed would cost \$10,700, and the verandas or exercising rooms \$6,400, in all \$17,100. We hope that it may be deemed proper, as it is certainly much needed, to make such an appropriation as will enable the Managers forthwith to provide the accommodations contemplated.

At the time of making the estimates for the new water supply for the asylum, the State Engineer expressed a doubt of the capacity and strength of the old iron pipe from the force pump on the Chenango canal to the asylum to meet the increased pressure necessary to pass the more abundant supply. It was but of three inches outside diameter, and already long in use, and its office was to carry water up a considerable grade. But it was concluded, on consideration, to leave its sufficiency to the test of experience, and the estimates, therefore, allowed nothing to meet such a possible necessity. Time has confirmed his doubt, and the old pipe soon began to betray its weakness and insufficiency. It did not pass a sufficient quantity of water, and the pressure upon it and decay produced leakages and parted the joints and connections, so that a new, larger and heavier pipe was the only resource to secure the full benefit of the considerable expenditure already made. A pipe of six inches diameter, extending from the force pump to the asylum, has, therefore, been laid during the last season, which is now in use, and passes with facility an abundant quantity of water. The expenditure for this necessity was \$5,563.68, as appears by the treasurer's report, which is exclusive of \$1,719.79 for a steam pump and its connections, and the extension of the branches of the pipe, and the necessary hydrants for fire protection, which has been paid since the date of that report; in all amounting to \$7,285.47.

It will be observed, also, that the report of the treasurer shows a considerable expenditure for keeping the buildings, fixtures, conveniences and appendages in good repair. The repainting of the roofs and of other parts, the renewing and reparation of the coils of the heating apparatus (worn out or impaired by about twenty years of service), the relaying of

floors, and the repairing and restoration of nine bath rooms, water closets and washing rooms, all very necessary to be done without procrastination, have burdened the Managers with more than an ordinary outlay for such purposes. They have stated in previous reports that expenditures of this character should never be a charge on the current funds received for the board and care of patients. The amount advanced for the purposes above enumerated, as appears by the treasurer's report, is \$16,207.31, to reimburse which, together with other expenditures herein referred to, we respectfully ask for an appropriation as heretofore accustomed.

It is evident to the Managers, and to all who are conversant with the duties and labors of the medical officers of the asylum, that their number is inadequate to discharge with the greatest efficiency the onerous charge which a daily attendance upon five or six hundred inmates in different stages of disease imposes on them; including in the consideration the necessary work of recording cases, making daily minutes of them, conducting a large correspondence, and preparing such tabular and statistical information and reports as a due and intelligent performance of their duty requires. Much of this sort of service has to be done at night in consequence of the unintermitting daily duties of visiting the wards, examining cases for admission, and answering the various calls of the relatives and friends of patients, of public officers, and of general visitors seeking information or the gratification of a reasonable curiosity. An additional assistant to the three now allowed by law is indispensable to such a routine, division and alternation of duty as seem to be requisite for its thorough performance, and for the relief of those who are now oppressed by severe and burthensome labor, and whose compensation is not fairly

adjusted to it. A fourth medical assistant would enable the superintendent so to arrange and alternate the office duties as to alleviate most sensibly the burthen which overworks the medical officers. We hope that the Legislature will concur with us in the propriety of authorizing the Managers to appoint an additional assistant, and to fix a suitable compensation for his services, as well as to augment the compensation so hardly earned by the other medical officers of the asylum.

The Managers deem it timely and proper to call the attention of the Legislature to some embarrassing questions affecting the important charitable institutions dependent on the bounty and control of public authority, and which happen particularly to concern the institution under their immediate charge. The superintendents and officers of such charities are appointed to perform particular trusts and duties prescribed by law, and are properly held to the strictest performance of them within the reasonable powers and capacity of qualified men. To exact more of them is not only inconsiderate and unjust, but subversive of the very purpose of their appointment. They cannot do everything; they can only do their particular duty. They are hindered in doing this by the frequent, and frequently unnecessary calls of judicial and of other authority, which they cannot disregard without a real or technical disobedience of the law, which itself ought to protect them against a conflict of duties, and give weight, consideration and preference to the superior duty. There are two particulars of special grievance. 1. Such officials are often required, by subpœna or otherwise, to become witnesses as experts in cases of the alleged insanity of persons not under their care or observation; and are required, by a process for contempt, to obey the call, whatever may be the exigency of

special duty in their official trusts. They are legally subject to be summoned away from that duty by any of the courts of high civil or criminal jurisdiction, by a surrogate, or even by a justice of the peace, to express a mere opinion, under oath, respecting cases of which they have no proper opportunity for a particular knowledge. Every day they are liable to such a summons. Every month, perhaps, they are actually summoned; and whatever may be the positive necessities of their office, those must be sacrificed, under the penalty of a contempt, and often for days together, to the capricious and froward demands of an attorney, or of a thoughtless or contriving party in a suit seeking after favorable professional witnesses. It may not be amiss to observe that this matter of the testimony of experts, especially in cases of alleged insanity, has gone to such an extravagance that it has really become of late years a profitable profession to be an expert witness, at the command of any party and ready for any party, for a sufficient and often an exorbitant fee; thus destroying the real value of the testimony of unbiased experts. Vaunted and venal expertness is usually worthless for evidence; and yet such testimony is getting to be in great demand. One expert, whether real or assumptive, is set up against another; and finally it will result that, by competition, pretending inexpertness will prevail, by numbers, against the real expertness of those few thoroughly qualified men whose judgment is the mature experience collected from years of daily study and practical observation. Obviously it does not become States, or great tribunals, or public justice, that the testimony which settles matters of weight should be trifled with as it is for an emolument; and experts should only be called, as formerly they were, by the court itself, on its own judgment of the neces-

sity requiring them ; and when called at all, they should be the sworn advisers of the *court and jury*, and not witnesses summoned in the particular behalf of any party ; nor should they be permitted to receive either fee or reward from any party, but only from the court or the public. Capable judges are competent to say, in any case, whether the court requires the evidence of experts for its information in matters of technical knowledge or science, and also to say who shall be particularly summoned for his acknowledged expertness ; and should, therefore, have the control of that sort of testimony, which is only allowable to enlighten the court and jury, and not to be the ordinary captious weapon of attorneys and counselors, nor to be the theoretical, one-sided opinions of sciolists, founded on some hypothetical case which deflects more or less from the actual truth of the real case in question. By a deviation from the old strictness of this rule, the testimony of opinions is gradually gaining control over the testimony of facts ; and what ought only to affect the instructions of the court on points of law, becomes weightier with the jury than the evidence of facts, which it is their peculiar duty and province to decide upon under proper instruction as to the law, with which juries are not ordinarily supposed to be particularly conversant. *De lege judices, de facto juratores, respondent.* The judges pass upon the law ; the jury upon the facts. True and impartial experts enlighten the judges, who instruct the juries ; and the whole virtue of expertness lies in the light it may shed upon obscure questions of a scientific or technical character, in which judges and juries are not supposed to be versed. Trials of criminals and questions about last wills have lately assumed the character of contests of expertness, so that the

office of the court and jury seems to be narrowed to a judgment, not upon the value of proved facts, but on the weight of conflicting opinions. Such a perversion of law and testimony results in constantly calling away from their public duties those who have a repute of superior skill and experience, who are often made witnesses under circumstances that impair the due weight of their opinions, and are adverse to a fair expression of them. Some check should be interposed by law to prevent the frequent calls upon the medical officers of public charities as expert witnesses, by limiting the discretion of calling them to the court rather than to the parties to a controversy, or their attorneys and counselors.

Much interruption of the necessary official duty of the medical officers also arises from the somewhat summary granting by the courts of writs of *habeas corpus*, requiring them to leave their proper duties as public officers and to make returns to such writs, by a personal attendance with those in their custody, before some judge or court distant from the proper place of their official duty. This evil is double: 1. By requiring the frequent absence of the medical officer from his proper post. 2. By requiring the bodily presence of his ward, well or ill, at some distant or inconvenient place. Both evils are apparent on the mere statement of them; and both may be remedied without any harm to public or private liberty or rights.

As to the first, a sheriff or some other civil officer, or some deputed servant of the court or judge, might be required to serve the writ or process, and at the same time to take charge of and produce in person the subject of the writ, when that is deemed necessary for the ends of justice and liberty, with an explanatory sworn statement in writing of the superintendent

or other medical officer of the asylum or hospital, specifying the original and present cause of detention ; all which would doubtless be a sufficient and satisfactory return under all ordinary circumstances. But it is a most reasonable presumption that a person in the charge of a State institution is already sufficiently in the charge and custody of the State itself, for all purposes of personal safety and protection ; and therefore, particularly, if not a criminal, should not be forced from his seclusion, until sufficient cause be shown for a rude and summary interference upon the return of such a preliminary process as is suggested. The State should so far confide in the officers of its own public charitable institutions as to take their returns of facts on affidavit as presumptive evidence of the truth ; and should only put them to further question on good contradictory evidence impeaching the return. The result of such a proceeding would probably be, in nine cases out of ten, that no further return would be required by the court or judge, and that the patient himself would not be subject to personal disturbance, nor the medical officer to distraction or absence from his duties. It should be considered, also, that the forced personal appearance of a lunatic or imbecile on the usual process is often a serious and sometimes a fatal obstruction to his cure, or at least an impairment of his present health ; and even if the personal appearance of the medical officer in charge of him should be absolutely required for the purposes of the return, the personal appearance of the subject of the writ should not always be imperatively demanded.

There should obviously be a discretion lodged somewhere, to meet the exigencies of special cases ; and it would seem proper that the court or officer granting the writ should have

that discretion, exclusive of the parties requiring its issue and enforcement.

Whoever officially grants such a writ, on proper cause shown, should be required to make it returnable before some proper judge or officer in the immediate vicinity of the subject of it and his legal custodian, so that the return might be expeditiously made, with as little interference with the public duty of the custodian and the personal welfare of his ward as will fairly meet the exigency. Such a provision as this would prove very serviceable in a multitude of cases, without any perceivable detriment to public or private rights.

The purpose of a writ of *habeas corpus* is to secure the liberty of every citizen from unlawful infringement. Although all confinement is an infraction of personal liberty, yet the State demands and authorizes confinement in particular cases, for the good of the community, for health, for safeguard, for punishment of crime. The writ should not, however, be allowed to defeat the purpose of the State. In the case of a lunatic confined to an asylum established by the State, and under its special charge and control, the presumption must necessarily be in favor of the State and its officers, that the confinement is for proper cause. Unless it be first manifestly shown, by abundant positive proof, and not by mere suggestion, that the confinement is legally unwarranted, no summary process should be suffered to break up the discipline of the State in its own institutions; nor, especially, to carry away, on short notice and peremptorily, its own officers, charged, by a sort of attorneyship, with the duties of the State, and for that purpose representing itself. Such a proceeding is stultifying: it is giving and revoking authority in the same breath.

The best records show, quite conclusively, that the commitments, to State hospitals and asylums for the insane, of persons who are not insane when committed, or who are detained after recovery, having been insane when committed, or who are not at once discharged when discovered to be sane, are so uncommon that not a case can be fairly vouched; and the final judgments in cases of *habeas corpus* affecting lunatics confined in State hospitals almost invariably result in returning the subjects of the writ into the same custody, often with an aggravation, temporary or permanent, of their malady, caused by their summary removal from the asylum and their forced appearance before the officer or court requiring their presence. There is a manifest inhumanity in thus publicly exposing human wretchedness so real as that of insanity. There should therefore be some modification of the proceedings in the case of the State institutions of a charitable purpose, so that a certificate or an affidavit of the chief officer or of his assistants, or a personal examination by some competent judicial officer in the vicinage, should *prima facie* be a sufficient legal return; and that before any personal appearance, either of a superintendent or of his ward, be positively demanded, the court or judicial officer should be abundantly satisfied by rebutting evidence that such a personal appearance is absolutely necessary for the ends of justice and right.

A modification adapted to such peculiar circumstances does not seem in any way to conflict with the purpose or principle of this humane writ. A strict compliance with its customary technical exigencies may often defeat its proper end. It should be made to subserve the purposes of both justice and humanity, if it can. In the case of many lunatics, death may release the victim of disease and interference before the most summary

law would do so. The quiet and seclusion so essential in such cases is abruptly disturbed, and the patient is prematurely sacrificed to an untoward technicality which, in such extreme cases, ought to lose its rigidity in favor of a crazed brain and insuperable weakness.

The Managers conclude their report, expressing their satisfaction with the discipline and management of the institution, and commending highly the zeal, industry, fidelity and humanity of the medical officers, and all concerned, in the care, relief and cure of its numerous afflicted inmates.

SAMUEL CAMPBELL.

FRANCIS KERNAN.

S. O. VANDERPOEL.

J. WATSON WILLIAMS.

ALEXANDER S. JOHNSON.

J. McQUADE.

THEODORE POMEROY.

G. B. ANDERSON.

PETER CLOGHER.

TREASURER'S REPORT.

To the Managers of the State Lunatic Asylum :

The Treasurer of the asylum respectfully submits the following summary of his receipts and expenditures for the year ending November 30th, 1872 :

RECEIPTS.

| | | |
|------------------|--|--------------|
| 1871. Dec. 1. | Balance in the treasury | \$34,862 49 |
| Dec. 1, 1871, to | | |
| Dec. 1, 1872. | From State Treasurer, for officers' salaries..... | 10,888 05 |
| | From State Treasurer, for support of Mark Jack, an Indian..... | 219 08 |
| 1872. July 3. | From State Treasurer, part of \$52,929.60, appropriated by chapter 733, Laws of 1872 (supply bill), to reimburse the fund for support and maintenance for moneys taken therefrom to make additional alterations and repairs to the buildings | 10,000 00 |
| 1872. Sept. 9. | From State Treasurer, part of the appropriation of \$52,929.60, made for the asylum by chapter 733, Laws of 1872, as above ... | 12,929 61 |
| Dec. 1, 1871, to | | |
| Dec. 1, 1872. | From sundry counties, for the support of patients..... | 104,062 81 |
| | From sundry private patients | 54,433 72 |
| | From the steward, for hides, pigs, coal, etc., sold by him | 4,799 50 |
| | | \$232,195 25 |

PAYMENTS.

| | | |
|----------------------|---|-------------|
| Dec. 1, 1871, to | | |
| Dec. 1, 1872. | For provisions | \$62,920 03 |
| | For clothing of patients (advanced) | 11,537 78 |
| | For grading, paving and sidewalks..... | 6,152 91 |
| Carried forward..... | | \$80,610 72 |

| | |
|--|--------------|
| Brought forward | \$80,610 72 |
| Dec. 1. 1872. For the steward, for petty expenses..... | 600 00 |
| For officers' salaries..... | 10,888 05 |
| For city gas, including machinery expenses.. | 3,617 65 |
| For household stores, soap, brooms, crockery, etc..... | 4,482 67 |
| For furniture of all kinds, including beds and bedding..... | 6,687 61 |
| For attendants, assistants and labor, including salaries of chaplain, engineer, apothecary, butcher, tailor, farmer, book-keeper, etc... | 39,075 25 |
| For additions, alterations and repairs..... | 16,207 31 |
| For fuel and lights, besides gas | 8,708 38 |
| For farm, barn, garden and grounds..... | 7,567 49 |
| For medicines and medical stores..... | 4,652 15 |
| For books, printing, stationery, etc..... | 4,388 68 |
| For miscellaneous expenses..... | 3,206 96 |
| For brick sewer to river... .. | 115 37 |
| For patients' miscellaneous expenses..... | 1,485 32 |
| For supply of water..... | 5,565 68 |
| For cash refunded to patients on leaving | 108 07 |
| | <hr/> |
| | \$196,767 36 |
| 1872. Dec. 1. Balance to new account..... | 34,227 89 |
| | <hr/> |
| | \$232,195 25 |
| | <hr/> <hr/> |

E. A. WETMORE,
Treasurer.

UTICA, *December* 1, 1872.

THIRTIETH ANNUAL REPORT

OF THE

SUPERINTENDENT OF THE NEW YORK STATE LUNATIC ASYLUM, FOR THE YEAR ENDING NOVEMBER 30, 1872.

To the Board of Managers :

GENTLEMEN.—In compliance with the act organizing the asylum, the following report of its operations during the past year is respectfully submitted :

| | Men. | Women. | Total. |
|---|------|--------|--------|
| Number of patients at the commencement of the year..... | 311 | 272 | 583 |
| Received during the year..... | 209 | 190 | 399 |
| Whole number treated | 520 | 462 | 982 |
| Daily average under treatment | | | 588 |
| Discharged recovered | 78 | 64 | 142 |
| Discharged improved | 38 | 35 | 73 |
| Discharged unimproved | 99 | 57 | 156 |
| Discharged not insane..... | 12 | 2 | 14 |
| Died | 40 | 22 | 62 |
| Whole number discharged..... | 267 | 180 | 447 |
| Remaining November 30, 1872..... | 253 | 272 | 535 |

The number admitted this year is less than for a few years past. We have, however, refused admission to a number of private patients, but to none of the public class. The opening of the Hudson River Hospital for the Insane at Poughkeepsie

has been a great relief to this institution, as few have been sent here from the river counties below Albany. We have admitted a large number of patients, and many chronic cases have been necessarily removed to enable us to do so. If, however, we could have confined the admission to acute cases presenting chances of recovery, we should have received a much smaller number.

Of those admitted, 107 were cases of chronic insanity, ninety of whom had been insane for over two years, and in twenty of those admitted the duration of the insanity could not be ascertained.

Of the whole number, twenty-seven were between sixty and seventy years of age; two were between seventy and eighty, and one was over eighty. Nineteen were cases of general paresis; thirteen were epileptics; two were paralytics, and seventeen were not insane; twenty-one had attempted suicide; four had committed and thirteen had attempted homicide, and two had attempted homicide and suicide; nine were brought in irons, and four came tied with ropes; one was so feeble as to be brought on a bed. Of those discharged, fourteen were not insane when admitted. Three of these were cases of feigned insanity to escape punishment for crime, and the rest were drunkards whose vagaries and violence were mistaken for insanity. All these were committed under public authority and on certificates of insanity, or trial by jury. On the other hand, no single instance of error in diagnosis occurred, either in public or private cases, where the family physician has made the examination and recommended the case to be sent to the asylum. As far as the facts go, they tend to show that there is greater security in trusting to the family physician,

who is familiar with those who employ him and feels a sense of the responsibility of sending his patrons to an asylum, than in transferring this duty to persons who have only a pecuniary interest in examinations of patients under application for orders of lunacy for commitment to asylum.

As to a jury in such cases, there could hardly be a greater farce than that of applying to twelve men, utterly unfamiliar with the subject, to enter final judgment on a question of science without even the benefit of a charge from a court.

Four years ago I recommended the institution of systematic pathological investigations, and an addition to the medical staff of a special pathologist, to carry out the work successfully. This measure was heartily seconded by your board and immediately brought to the consideration of the Legislature. Before the report was made, I submitted the subject to Governor Hoffman, and it met his cordial approval, and in his annual message for that year he recommended it to the favorable action of the Legislature. This recommendation was made after an amount of special investigation which seemed to justify the probability of useful results, and in view of the progress of medical science in the direction of such research.

By the unanimous action of the Legislature a bill was passed, authorizing the appointment of a special pathologist, and Dr. Edward R. Hun of Albany, who was well qualified for such a position by previous study in microscopy, accepted the place.

Among the prominent medical men whom I consulted in the inception of the scheme was Dr. J. J. Woodward, Assistant Surgeon, U. S. A. He not only expressed great interest in the project, but gave valuable advice and aid in the securing the instruments needed, and in the arrangement of the laboratory. All the necessary instruments have now been obtained,

and a laboratory and a photographic room have been properly fitted up. These arrangements include all that is required for chemical and microscopic examinations, for photography and for photo-micrography. For the latter work a heliostat was demanded, an instrument not easily obtainable in this country. Its object is to direct a ray of light through a small aperture continuously upon the same point. This allows of taking photographic negatives of microscopic slides, without constantly shifting the apparatus to follow the progress of the sun. On bringing the subject to the attention of Mr. Charles Fassoldt, of Albany, a most ingenious watch and instrument maker, he made a heliostat which was subsequently perfected by his brother, Mr. John Fassoldt. By this instrument we are able to throw a ray of light at the same angle upon a given point, through the entire day, and thus work with a steady and uniform light. The heliostat is described in the *Monthly Microscopical Journal*, vol. 1, No. 1, page 27; but the one made by the Fassoldts has some improvements especially intended for the work to be done here. A large amount of preparatory labor has been necessary, but we are now prepared to go on vigorously.

Dr. Kempster, my second assistant physician, devoted considerable time to the study and practical work of photography, and has taken some twenty-five negatives of microscopic slides of brain tissue, a copy of each of which he has printed, and I present them as the first work performed here in this department.

Within a year some of the medical superintendents in the United States have expressed a determination to enter on similar investigations.

In a recent letter from Dr. W. A. F. Browne, late commissioner in lunacy for Scotland, and for many years a medical

superintendent, and now psychological consultant at the Crichton Royal Institution, Dumfries, he says: "Your arrangements for carrying out pathological research, upon an extended and strictly scientific system, are most laudable. My son, Crichton Browne, Wakefield, Yorkshire (1,600 patients), is busily engaged in applying all anatomical, microscopical, chemical and photographic means now at his disposal in the same direction which you have taken, and we most patiently await the results." We can but hope that investigations in this field will be inaugurated in the various institutions in the country, and thus the hospitals for the care of the insane become not only proper institutions for the detention and medical treatment of patients, but also centers from which medical science shall receive contributions of the highest value not only in regard to the knowledge and treatment of insanity, but also of nervous diseases generally.

We have continued the report of cases of death from year to year, with sketches characterizing them as faithfully as possible, and giving in detail the *post mortem* results, hoping, by these annual contributions, to accumulate data which, after a while, may be valuable in general deductions touching the pathology of the various conditions of the insane. Two years ago we were able to add a preliminary report, by Dr. Hun, on examination of the urine, and this year we give a report from the same source, on special microscopic examination of brain and nerve tissue in many cases. Though these investigations impose large additional labor on all the medical officers, we are satisfied they have a compensatory value. It is true these duties are not obligatory, and the officers receive no pecuniary compensation for services beyond those comprised in the ordinary range of duty, but they are rewarded for these labors by the

acquisition of additional knowledge, and by the consciousness of rendering the institution more and more valuable to the public. It will, undoubtedly, be admitted that a most important point in hospital observation is to reach, if possible, definite information in regard to the seat of the morbid process in insanity and the nature of that process. Indeed, it may be thought unnecessary to make this statement in view of the generally admitted fact that the brain is the part of the organism essentially involved. However, it must be equally admitted that beyond this general fact there is no special and definite pathology recognized.

It is not unusual or very rare to find physicians, even among those who have experience in asylums for insane, whose loose, vague and indefinite ideas of disease allow them to talk of moral insanity and of persons dying insane without disease of the brain. To acquire the data for studying the pathology and etiology of insanity, and they cannot be studied separately, we must first have a large accumulation of materials, gathered from many lines of investigation and in many directions of physical disease. Perhaps no disease, except such as is dependent on blood poisoning, has so wide a range of sympathetic disturbances as we find in insanity. The careful and scientific study of insanity comprises about the whole of the study of medicine. Almost every so-called disease may be found either in what are denominated causes, complications or sequences of insanity. In many cases it is difficult to determine the primary morbid process, whether in the brain, lungs or kidneys; and after death it is not always easy to assign the cause of death, until after a careful *post mortem* examination. Yet we find medical writers who have no practical or clinical knowledge of insanity, and who have never made a score of

post mortems in persons dying insane, talk as confidently of the causes, pathology etc., of the disease as of measles or pneumonia; who, because they have independent opinions on every other disease, must necessarily know all about insanity. To one of this class, insanity was so simple and appreciable that a passing glance at masses of patients, in casually visiting asylums, enabled him to put them down in numbers as his own clinical cases, by which he was qualified as an expert in the jurisprudence of insanity. Yet I have before me a letter from a distinguished alienist, who has spent many years in patient clinical study and large pathological investigation, lamenting the little progress made thus far in the essential diagnosis of insanity *as a disease* and almost despairing of accomplishing anything when so little real interest is taken by the public, and so much unreal knowledge professed by medical writers who are in the way of finding the ear of the medical profession, and especially of medical students.

Hence, it is a proper function, and in our view should be a requirement of every hospital for the insane, to make a medical report for the purpose of massing facts for use in synthetic examination of the disease, as well as for generalizations, which can in no other way be made.

This course would not only be highly conducive to the advancement of science but also to the interest of the public, in the elevation of institutions from places of mere custody to hospitals for the study and treatment of disease, and would arrest the growing tendency to the establishment of what are called private asylums, or retreats, for the board and care of insane, as a matter of pecuniary speculation.

It is probably too generally true that asylum are more places of custody than true hospitals for the sick, and that they are held as successful or unsuccessful largely in proportion to the scale of cost of support. It is also true that no institution for the insane in the United States has the requisite number of medical officers to discharge, competently, all the medical functions of such institutions, and have any time for reading, study and investigation, unless by trespassing on hours which should be given to sleep. The duties are so continuous and onerous that unless a medical man happens to have an exceptionally strong constitution he breaks down in the midst of his career, rarely living to complete a course of observation and place his accumulated experience in any useful form for the enrichment of medical science and the benefit of his successors.

We already have abundant illustrations of this parsimony in medical organizations at the cost of valuable lives given to untiring industry. From none of the distinguished medical superintendents of institutions in the United States, for half a century, have we received the results of their experience. Not a book upon insanity and its treatment, except the small work of Dr. Brigham, and that was written before he was superintendent of this institution. This is a striking comment on this point. However, until the public are able to see some fruits of medical research in a practical way, it is doubtful if we can hope for anything better.

The main questions in this direction are: will a larger number be cured or relieved if you bring up institutions to the character of hospitals, and have your efforts in anywise demonstrated this to be probable? From my own experience of twenty-two years, I think I am justi-

fied in answering both these questions in the affirmative. A larger proportion of acute cases recover now than formerly, and more recover after having passed into marked conditions of dementia. The general statistics will show, however, that the ratio of recoveries to the number received and the average population is lower. This is due to other causes—the character of the cases admitted, the tendency in all institutions to keep under care the most violent and sadly demented classes as a matter of public necessity, and the increase of incurables.

But there is another point that is not to be lost sight of, and that is the increased comfort rendered possible by a better knowledge of the disease and more thorough organization. No one can compare the institutions of twenty-five years ago with the present and not be struck with this.

Five years ago I recommended the construction of a few rooms for each sex, for the care of the sick, and especially for those who are so ill that it becomes desirable to have their friends with them, or for those requiring a special nurse. There are instances constantly occurring where a feeble, sick patient is injured, and recovery retarded, by being kept in the general ward, and where an unnecessary restraint has to be exercised over all others in the ward for the welfare of the one sick patient. The presence of relatives and friends of sick in the general ward for days, and even weeks, is not desirable. The friends, under such circumstances, wish to come and go, and should be able to do so without disturbing the general operations of the institution or taking an attendant from duty to take them in and out several times a day. The plan formerly submitted, and which, with a single modification, I again present, will permit such sick

to be visited, partly or entirely, by friends who can have ingress and egress to the special hospital rooms of the three stories from one point, and be in constant communication with the supervisors of the respective departments, and in ready, easy and proper relation with the medical officers. This subject was brought to the attention of the Board of State Charities, in 1868, and they made the following recommendation :

“There should be erected two small wards, one for each sex, for the treatment of the sick and feeble, that their friends may be able to visit them and remain near them without disturbing a large number in a general ward. This improvement is demanded not only by humanity but by decency, especially in the case of female patients, who are frequently admitted to the asylum in a condition which justifies and demands seclusion and the most tender care.”

Your attention has been frequently called to the limited capacity of the day rooms for the more disturbed classes. I have also called the attention of the Governor of the State, and the State Comptroller and such of the Board of State Charities as have visited and inspected the asylum, to this point. These rooms are not only too small but they are not well located and are too dark.

They have severally approved of proposed changes, which have been from time to time postponed for more pressing improvements and repairs.

In accordance with the direction of your board, I submit a plan of the changes and improvements necessary to make the institution, as far as possible, meet the necessities of those who are obliged to be transferred to its care. In a rigorous climate, such as we are under, patients are necessarily in the house a

large part of the year, especially in the winter months. Light and air, so essential to persons in health, are doubly necessary for the sick. The wards in asylums should be light and cheerful, both for the health and more speedy restoration of the patients, and for their comfort and happiness under a compulsory confinement sufficiently irksome under the best conditions possible.

We have realized the necessity of isolated rooms the past year in the appearance of small-pox in the institution. Four cases occurred, all in the men's department and each in a different ward. The first case was May 24, two more June 19, and the last one June 27. The first case was a demented man who was admitted February 28, 1872. He had not been out of the institution after admission, and as far as we have been able to ascertain, had had no intercourse with outside people.

This was a case of confluent small-pox, and the patient died on the tenth day. One of the other cases was confluent and the other two were severe cases. We procured two hospital tents and located them some distance from the building on the farm, and thus completely isolated them. We also assigned attendants to take care of them who had had the disease. All the patients, attendants and employes were vaccinated with fresh bovine virus. A number were vaccinated the second and some the third and fourth time before the vaccination proved successful.

Attendants G. B. Griffiths and D. K. Davis took care of the four cases, and were necessarily isolated from all society except that of the patient from the 24th of May to the 15th of July. They deserve commendation for the cheerful and faithful manner in which they accepted and discharged a most disagreeable duty.

TABLE

Showing the General Statistics of the Asylum from its opening, January 16, 1843, to December 1, 1872.

| | |
|--|--------|
| Total number of admissions..... | 10,621 |
| Total number of discharges..... | 10,086 |
| Total number of discharged recovered | 4,035 |
| Total number discharged improved..... | 1,637 |
| Total number discharged unimproved..... | 2,935 |
| Total died | 1,336 |
| Not insane..... | 143 |

GENERAL STATEMENT

Of the operations of the New York State Lunatic Asylum for the thirty years ending 30th November, 1872.

| YEARS. | Number admitted. | Number discharged. | Number treated. | Discharged recovered. | Discharged improved. | Discharged unimproved. | Discharged, not insane. | Died. |
|-----------|------------------|--------------------|-----------------|-----------------------|----------------------|------------------------|-------------------------|-------|
| 1843..... | 276 | 80 | 276 | 53 | 14 | 6 | .... | 7 |
| 1844..... | 275 | 211 | 471 | 132 | 47 | 16 | .... | 61 |
| 1845..... | 293 | 268 | 553 | 135 | 78 | 34 | .... | 21 |
| 1846..... | 337 | 248 | 622 | 133 | 60 | 33 | .... | 22 |
| 1847..... | 428 | 330 | 802 | 187 | 70 | 25 | .... | 48 |
| 1848..... | 405 | 382 | 877 | 174 | 84 | 38 | .... | 86 |
| 1849..... | 362 | 408 | 857 | 203 | 66 | 70 | .... | 69 |
| 1850..... | 367 | 387 | 816 | 171 | 57 | 108 | .... | 51 |
| 1851..... | 366 | 360 | 795 | 58 | 28 | 57 | .... | 24 |
| 1852..... | 390 | 400 | 825 | 156 | 53 | 152 | .... | 39 |
| 1853..... | 424 | 403 | 849 | 169 | 66 | 129 | .... | 39 |
| 1854..... | 390 | 386 | 836 | 164 | 42 | 115 | .... | 65 |
| 1855..... | 276 | 278 | 725 | 128 | 15 | 79 | 16 | 32 |
| 1856..... | 242 | 236 | 697 | 100 | 33 | 65 | 8 | 30 |
| 1857..... | 235 | 245 | 606 | 95 | 25 | 83 | 10 | 32 |
| 1858..... | 333 | 282 | 784 | 114 | 33 | 99 | 5 | 31 |
| 1859..... | 312 | 295 | 814 | 114 | 57 | 86 | 3 | 35 |
| 1860..... | 337 | 339 | 856 | 105 | 56 | 133 | 3 | 42 |
| 1861..... | 295 | 280 | 812 | 83 | 58 | 104 | 4 | 31 |
| 1862..... | 287 | 305 | 819 | 106 | 51 | 115 | 3 | 30 |
| 1863..... | 287 | 267 | 801 | 80 | 38 | 101 | 6 | 42 |
| 1864..... | 319 | 289 | 853 | 109 | 44 | 84 | 4 | 48 |
| 1865..... | 356 | 305 | 920 | 113 | 35 | 91 | 9 | 57 |
| 1866..... | 388 | 362 | 1,003 | 164 | 39 | 106 | 9 | 44 |
| 1867..... | 401 | 439 | 1,042 | 159 | 58 | 164 | 7 | 51 |
| 1868..... | 382 | 415 | 985 | 157 | 85 | 105 | 10 | 58 |
| 1869..... | 463 | 430 | 1,033 | 156 | 85 | 117 | 8 | 64 |
| 1870..... | 481 | 441 | 1,084 | 153 | 72 | 134 | 7 | 75 |
| 1871..... | 516 | 576 | 1,159 | 168 | 85 | 245 | 17 | 61 |
| 1872..... | 399 | 447 | 982 | 142 | 73 | 156 | 14 | 62 |

TABLE

Showing the per centage of recoveries on the average population, and admissions for thirty years.

| YEARS. | ON AVERAGE POPULATION. | | | ON ADMISSIONS. | | |
|-----------|------------------------|------------|--------------|----------------|------------|--------------|
| | Average population. | Recovered. | Per centage. | Admitted. | Recovered. | Per centage. |
| 1843..... | 106 | 53 | 48.52 | 276 | 53 | 19.20 |
| 1844..... | 236 | 132 | 55.93 | 275 | 132 | 48.80 |
| 1845..... | 265 | 135 | 50.94 | 293 | 135 | 46.07 |
| 1846..... | 283 | 133 | 46.99 | 337 | 133 | 39.46 |
| 1847..... | 415 | 187 | 45.06 | 428 | 187 | 43.60 |
| 1848..... | 474 | 174 | 36.70 | 405 | 174 | 42.96 |
| 1849..... | 454 | 203 | 44.71 | 362 | 203 | 56.07 |
| 1850..... | 433 | 171 | 39.49 | 367 | 171 | 46.59 |
| 1851..... | 440 | 112 | 23.45 | 366 | 112 | 36.60 |
| 1852..... | 441 | 156 | 35.37 | 390 | 156 | 40.00 |
| 1853..... | 423 | 169 | 39.95 | 424 | 169 | 39.85 |
| 1854..... | 444 | 164 | 37.16 | 390 | 164 | 42.05 |
| 1855..... | 467 | 128 | 27.40 | 275 | 128 | 46.54 |
| 1856..... | 454 | 100 | 22.24 | 242 | 100 | 41.73 |
| 1857..... | 463 | 95 | 20.52 | 235 | 95 | 40.42 |
| 1858..... | 489 | 114 | 23.31 | 333 | 114 | 34.23 |
| 1859..... | 509 | 114 | 22.40 | 312 | 114 | 36.54 |
| 1860..... | 516 | 105 | 20.33 | 337 | 105 | 31.15 |
| 1861..... | 519 | 83 | 15.99 | 295 | 83 | 27.46 |
| 1862..... | 526 | 106 | 20.15 | 287 | 106 | 36.93 |
| 1863..... | 528 | 80 | 15.15 | 287 | 80 | 27.87 |
| 1864..... | 560 | 109 | 19.46 | 319 | 109 | 31.02 |
| 1865..... | 591 | 113 | 18.95 | 356 | 113 | 31.74 |
| 1866..... | 643 | 164 | 25.50 | 388 | 164 | 42.26 |
| 1867..... | 610 | 159 | 26.00 | 401 | 159 | 39.65 |
| 1868..... | 589 | 157 | 26.65 | 382 | 157 | 41.00 |
| 1869..... | 600 | 156 | 26.00 | 463 | 156 | 33.69 |
| 1870..... | 629 | 153 | 24.32 | 481 | 153 | 31.80 |
| 1871..... | 605 | 168 | 27.76 | 516 | 168 | 32.57 |
| 1872..... | 588 | 142 | 24.00 | 399 | 142 | 35.59 |

T A B L E

Showing the per centage of deaths on the whole number treated, and on the average population, for thirty years.

| YEARS. | Deaths. | Whole No. treated. | Per centage. | Average population. | Per centage. |
|------------|---------|-----------------------|--------------|------------------------|--------------|
| 1843 | 7 | 267 | 2.53 | 109 | 6.44 |
| 1844 | 16 | 471 | 3.39 | 236 | 6.78 |
| 1845 | 21 | 553 | 3.79 | 265 | 7.92 |
| 1846 | 22 | 622 | 3.53 | 283 | 7.77 |
| 1847 | 48 | 803 | 5.98 | 415 | 11.56 |
| 1848 | 86 | 877 | 9.80 | 474 | 18.14 |
| 1849 | 69 | 857 | 8.05 | 454 | 15.19 |
| 1850 | 51 | 815 | 6.25 | 433 | 11.77 |
| 1851 | 48 | 795 | 6.03 | 440 | 10.91 |
| 1852 | 39 | 825 | 4.72 | 441 | 8.84 |
| 1853 | 39 | 849 | 4.59 | 423 | 9.22 |
| 1854 | 65 | 836 | 4.75 | 444 | 14.63 |
| 1855 | 32 | 725 | 4.41 | 467 | 6.85 |
| 1856 | 30 | 697 | 4.30 | 454 | 6.61 |
| 1857 | 32 | 696 | 4.59 | 463 | 6.88 |
| 1858 | 31 | 784 | 3.95 | 489 | 6.33 |
| 1859 | 35 | 814 | 4.30 | 509 | 6.87 |
| 1860 | 42 | 856 | 4.90 | 516 | 8.13 |
| 1861 | 31 | 812 | 3.82 | 519 | 5.97 |
| 1862 | 30 | 819 | 3.66 | 526 | 5.70 |
| 1863 | 42 | 801 | 5.24 | 528 | 7.95 |
| 1864 | 48 | 853 | 5.02 | 560 | 8.57 |
| 1865 | 57 | 920 | 6.19 | 591 | 8.79 |
| 1866 | 44 | 1,003 | 4.38 | 643 | 6.84 |
| 1867 | 51 | 1,042 | 4.89 | 610 | 8.36 |
| 1868 | 58 | 985 | 5.88 | 589 | 9.84 |
| 1869 | 64 | 1,033 | 6.29 | 600 | 10.66 |
| 1870 | 75 | 1,084 | 6.91 | 629 | 12.08 |
| 1871 | 61 | 1,159 | 5.35 | 605 | 10.08 |
| 1872 | 62 | 982 | 6.31 | 588 | 10.54 |

TABLE

Showing the ages of those admitted, and those discharged recovered, during the year ending November 30, 1872.

| YEARS. | ADMITTED. | | | DISCHARGED RECOVERED. | | |
|-------------------|-----------|--------|--------|-----------------------|--------|--------|
| | Men. | Women. | Total. | Men. | Women. | Total. |
| From 14 to 20.... | 9 | 11 | 20 | 8 | 3 | 11 |
| From 20 to 30.... | 74 | 40 | 114 | 26 | 21 | 47 |
| From 30 to 40.... | 49 | 58 | 107 | 12 | 17 | 29 |
| From 40 to 50.... | 42 | 47 | 89 | 22 | 15 | 37 |
| From 50 to 60.... | 20 | 19 | 29 | 8 | 6 | 14 |
| From 60 to 70.... | 11 | 16 | 37 | 2 | 2 | 4 |
| From 70 to 80.... | 2 | ..... | 2 | ..... | .... | ..... |
| From 80 to 90.... | 1 | ..... | 1 | ..... | ..... | ..... |
| Total. | 208 | 191 | 399 | 78 | 64 | 142 |

EDUCATION.

Of 399 admissions, 3 had received a collegiate, 26 an academic, and 355 a common school education; 8 could read and write, 5 could read only, and 5 had received no education.

CIVIL CONDITION.

Of the 399 admissions, 106 men and 114 women were married, 95 men and 57 women were single, 8 men and 18 women were widowed, and 1 woman was divorced.

TABLE

Of probable exciting causes in those admitted during the year.

| | Men. | Women. | Total. |
|--|------|--------|--------|
| General ill health | 32 | 67 | 99 |
| Ill health from overwork, grief, anxiety, fatigue and loss of sleep..... | 10 | 15 | 25 |
| Ill health following fevers | 1 | .... | 1 |
| Ill health from uterine diseases..... | .... | 2 | 2 |
| Ill health from prolonged lactation ..... | .... | 2 | 2 |
| Puerperal ..... | .... | 18 | 18 |
| Change of life ..... | .... | 2 | 2 |
| Intemperance..... | 33 | 2 | 35 |
| Masturbation | 33 | 1 | 34 |
| Phthisis | 11 | 15 | 26 |
| Meningitis | 3 | 3 | 6 |
| Apoplexy ..... | .... | 1 | 1 |
| Scrofula..... | 2 | 3 | 5 |
| Sun stroke | 2 | .. | 2 |
| Epilepsy | 12 | 1 | 13 |
| Rheumatism | 2 | 3 | 5 |
| Opium habit..... | 2 | 3 | 5 |
| Peritonitis..... | .... | 1 | 1 |
| Injury to head..... | 4 | 4 | 8 |
| Bright's disease | 1 | .... | 1 |
| Jaundice | 2 | .... | 2 |
| Menstrual irregularities..... | .... | 8 | 8 |
| Pneumonia | 2 | 2 | 4 |
| Paralysis | 2 | .... | 2 |
| Dyspepsia | 1 | .... | 1 |
| Syphilis | 1 | .... | 1 |
| Abortion ..... | .... | 1 | 1 |
| Measles ..... | .... | 1 | 1 |
| Paresis | 17 | 2 | 19 |
| Not insane | 14 | 3 | 17 |
| No history of causation | 22 | 30 | 52 |
| Total | 209 | 190 | 399 |

TABLE

Showing the form of mental disorder in three hundred and ninety-nine cases.

| FORM. | Men. | Women. | Total. |
|------------------------|------|--------|--------|
| Melancholia | 52 | 60 | 112 |
| Acute mania..... | 40 | 45 | 85 |
| Dementia | 36 | 30 | 66 |
| Chronic mania..... | 18 | 23 | 41 |
| Sub-acute mania | 18 | 15 | 33 |
| Periodic mania | 1 | 6 | 7 |
| Paroxysmal mania | 1 | 5 | 6 |
| Epilepsy | 12 | 1 | 13 |
| Paresis | 17 | 2 | 19 |
| Not insane | 14 | 3 | 17 |
| Total | 209 | 190 | 399 |

TABLE

Showing the Statistics of hereditary transmission in three hundred and thirty-nine cases.

| WHERE FOUND. | Men. | Women. | Total. |
|-------------------------------------|-------|--------|--------|
| Paternal branch | 15 | 18 | 33 |
| Maternal branch..... | 15 | 18 | 33 |
| Maternal and paternal branches..... | ..... | 5 | 5 |
| Insane relatives..... | 9 | 8 | 17 |
| Total | 39 | 49 | 88 |

TABLE

Showing the duration of insanity previous to admission, in three hundred and ninety-nine cases.

| | Men. | Women. | Total. |
|----------------------|------|--------|--------|
| One week..... | 8 | 7 | 15 |
| Two weeks..... | 11 | 18 | 29 |
| Three weeks..... | 8 | 6 | 14 |
| One month..... | 12 | 13 | 25 |
| Two months..... | 22 | 28 | 50 |
| Three months..... | 9 | 10 | 19 |
| Four months..... | 11 | 12 | 23 |
| Five months..... | 6 | 5 | 11 |
| Six months..... | 17 | 10 | 27 |
| Seven months..... | 2 | 5 | 7 |
| Eight months..... | 5 | 5 | 10 |
| Nine months..... | 2 | 1 | 3 |
| Ten months..... | .... | 4 | 4 |
| Eleven months..... | .... | 2 | 2 |
| Twelve months..... | 18 | 15 | 33 |
| Fourteen months..... | 2 | 2 | 4 |
| Sixteen months..... | 4 | 1 | 5 |
| Eighteen months..... | 5 | 3 | 8 |
| Two years..... | 17 | 13 | 30 |
| Three years..... | 6 | 3 | 9 |
| Four years..... | 5 | 2 | 7 |
| Five years..... | 2 | 5 | 7 |
| Six years..... | 1 | 3 | 4 |
| Seven years..... | 3 | 1 | 4 |
| Eight years..... | .... | 1 | 1 |
| Nine years..... | 1 | .... | 1 |
| Ten years..... | 1 | 1 | 2 |
| Twelve years..... | 3 | 2 | 5 |
| Fifteen years..... | 1 | .... | 1 |
| Sixteen years..... | 2 | .... | 2 |
| Seventeen years..... | .... | 1 | 1 |
| Eighteen years..... | .... | 1 | 1 |
| Twenty years..... | 1 | ... | 1 |
| Unascertained..... | 9 | 8 | 17 |
| Not insane..... | 14 | 3 | 17 |
| | 208 | 191 | 399 |

TABLE

Showing the duration of insanity previous to admission, and the period under treatment, in one hundred and forty-two cases discharged recovered.

| | BEFORE ADMISSION. | | | UNDER TREATMENT. | | |
|------------------------|-------------------|--------|--------|------------------|--------|--------|
| | Men. | Women. | Total. | Men. | Women. | Total. |
| One week | 5 | 8 | 13 | .... | ..... | .... |
| Two weeks | 9 | 6 | 15 | .... | ..... | .... |
| Three weeks..... | 3 | 3 | 6 | .... | ..... | .... |
| One month | 3 | 4 | 7 | .... | ..... | .... |
| Two months. | 15 | 18 | 33 | 3 | 3 | 6 |
| Three months..... | 4 | 5 | 9 | 9 | 11 | 20 |
| Four months | 3 | 3 | 6 | 11 | 10 | 21 |
| Five months..... | 2 | 2 | 4 | 11 | 5 | 16 |
| Six months | 9 | 2 | 11 | 7 | 6 | 13 |
| Seven months..... | 1 | ..... | 1 | 5 | 5 | 10 |
| Eight months | 2 | 1 | 3 | 1 | 5 | 6 |
| Nine months..... | .... | ..... | .... | 5 | 3 | 8 |
| Ten months..... | .... | 1 | 1 | 2 | 1 | 3 |
| Eleven months..... | 1 | ..... | 1 | 1 | 2 | 3 |
| Twelve months .. | 4 | 3 | 7 | 4 | 2 | 6 |
| Thirteen months ..... | .... | ..... | .... | 2 | 3 | 5 |
| Fourteen months..... | .... | ..... | .... | 2 | 3 | 5 |
| Fifteen months .. | 1 | ..... | 1 | 1 | ..... | 1 |
| Sixteen months ..... | .... | ..... | .... | 1 | 1 | 2 |
| Seventeen months..... | .... | ..... | .. | 1 | ..... | 1 |
| Eighteen months..... | 1 | 1 | 2 | 2 | 2 | 4 |
| Twenty months..... | .... | 1 | 1 | 3 | 1 | 4 |
| Twenty-two months..... | .... | ..... | .. | .... | 1 | 1 |
| Two years | 7 | 1 | 8 | 3 | ..... | 3 |
| Thirty months ..... | .... | ..... | .... | 1 | ..... | 1 |
| Three years | 2 | ..... | 2 | 2 | ..... | 2 |
| Four years..... | .... | ..... | .... | 1 | ..... | 1 |
| Five years..... | 1 | ..... | 1 | .... | ..... | .... |
| Six years ..... | .... | 1 | 1 | .... | ..... | .... |
| Seven years..... | 1 | ..... | 1 | .... | ..... | .... |
| Ten years..... | 1 | ..... | 1 | .... | ..... | .... |
| Unascertained | 3 | 4 | 7 | .... | ..... | .... |
| Total..... | 78 | 64 | 142 | 78 | 64 | 142 |

TABLE

Showing the Nativity of those admitted.

| | |
|------------------|-----|
| New York..... | 287 |
| Ireland | 48 |
| Germany | 17 |
| England | 11 |
| Connecticut..... | 8 |
| Canada | 5 |

| | |
|---------------------|-----|
| Vermont..... | 3 |
| Massachusetts..... | 3 |
| Wales..... | 2 |
| Switzerland..... | 2 |
| Austria..... | 2 |
| Bavaria..... | 2 |
| Rhode Island..... | 2 |
| France..... | 1 |
| Scotland..... | 1 |
| Poland..... | 1 |
| New Hampshire..... | 1 |
| South Carolina..... | 1 |
| Wisconsin..... | 1 |
| Maine..... | 1 |
| Total..... | 399 |

T A B L E

Showing Occupations of those admitted.

| | |
|-----------------------------------|-----|
| Housekeepers..... | 153 |
| Farmers .. | 84 |
| Laborers..... | 31 |
| Workers in wood..... | 14 |
| No occupation..... | 13 |
| Workers in leather..... | 13 |
| Housework..... | 12 |
| Merchants..... | 10 |
| Teachers..... | 7 |
| Workers in iron..... | 5 |
| Students..... | 5 |
| Seamstress..... | 5 |
| Insurance and express agents..... | 5 |
| Printers..... | 3 |
| Clerks..... | 3 |
| Painters..... | 3 |
| Millers..... | 2 |
| Cigar makers..... | 2 |
| Peddlers..... | 2 |
| Hatters..... | 2 |
| Book-keepers..... | 2 |
| Cooks..... | 2 |
| Factory operative..... | 1 |
| Dentist..... | 1 |
| Glass manufacturer..... | 1 |
| Confectioner..... | 1 |
| Spinner..... | 1 |
| Clergyman..... | 1 |

| | |
|-------------------------|-----|
| Weighmaster..... | 1 |
| Barber | 1 |
| Tailor | 1 |
| Physician | 1 |
| Draughtsman .. | 1 |
| Hotel-keeper .. | 1 |
| Lawyer | 1 |
| Policeman | 1 |
| Baker | 1 |
| Builder .. | 1 |
| Sailor | 1 |
| Telegraph operator..... | 1 |
| Druggist | 1 |
| Detective | 1 |
| Nickel plater..... | 1 |
| Total | 399 |

TABLE

Showing number of cases of General Paresis admitted and died since 1849.

| YEARS. | ADMITTED. | | | DIED. | | |
|-------------|-----------|--------|--------|-------|--------|--------|
| | Men. | Women. | Total. | Men. | Women. | Total. |
| 1849 ..... | .... | .... | .... | 4 | .... | 4 |
| 1850 | 1 | .... | 1 | 2 | .... | 2 |
| 1851 | 1 | .... | 1 | 2 | .... | 2 |
| 1852 | 1 | 1 | 2 | .... | 1 | 1 |
| 1853 | 6 | 1 | 7 | 4 | 1 | 5 |
| 1854 | 4 | 1 | 5 | 4 | .... | 4 |
| 1855 | 7 | .... | 7 | 4 | .... | 4 |
| 1856 | 2 | .... | 2 | 3 | .... | 3 |
| 1857 | 9 | .... | 9 | 3 | .... | 3 |
| 1858 | 4 | 1 | 5 | 4 | .... | 4 |
| 1859 | 5 | 1 | 6 | 3 | 2 | 5 |
| 1860 | 9 | .... | 9 | 9 | .... | 9 |
| 1861 | 8 | 1 | 9 | 10 | .... | 10 |
| 1862 | 7 | .... | 7 | 4 | .... | 4 |
| 1863 | 11 | .... | 11 | 9 | 1 | 10 |
| 1864 | 15 | 2 | 17 | 12 | .... | 12 |
| 1865 | 22 | .... | 22 | 12 | 2 | 14 |
| 1866 | 10 | 3 | 13 | 9 | .... | 9 |
| 1867 | 13 | .... | 13 | 8 | .... | 8 |
| 1868 | 22 | .... | 22 | 9 | 1 | 10 |
| 1869 | 29 | .... | 29 | 15 | .... | 15 |
| 1870 | 17 | 2 | 19 | 18 | 1 | 19 |
| 1871 | 27 | 4 | 31 | 17 | 1 | 18 |
| 1872 | 17 | 2 | 19 | 17 | 2 | 19 |
| Total | 247 | 19 | 256 | 182 | 12 | 194 |

There were, during the year, forty deaths among the men and nineteen autopsies were held, which we give with a brief history of each case. These, by multiplying the data, will aid in establishing pathological facts regarding various forms of disease.

A man, age forty-seven, of good habits, had been insane for two years, though friends had noticed marked evidences of insanity for only some four months. He then developed the delusion that he was a telegraph operator, and occupied much of his time drumming on the table as if sending messages; also asserted that food was poisoned, and would not eat unless others first tasted it. He then became violent toward his brother; attacked and threatened to kill him. When admitted, tongue and hands were tremulous and gait unsteady; was exalted and dictatorial; refused to go to dining-room, but ate heartily. After two months he failed in mental and physical strength; undressed himself upon the ward; was noisy at night, and filthy in his habits. He finally refused food and rapidly failed. An œdematous condition of the hand and arm occurred, which was followed by an effusion of sanguinolent serum under the cuticle. He died after nine months' residence in the asylum.

Autopsy.—Rigor well marked; left hand and arm œdematous and discolored.

Head.—Scalp and skull cap unusually thick; arachnoid raised by serous effusion, in some places one-half inch. Marked depression of convolutions in upper part of left hemisphere. Lateral ventricles empty. Weight of brain, cerebellum and medulla, fifty-two ounces.

Thorax.—Firm old pleuritic adhesions at apex of right lung, which was studded with cretaceous deposits; remaining lung

substance normal. Heart large and fatty; valves and orifices normal. Firm white clot in each ventricle extending into connecting vessels.

Abdomen.—Liver and kidneys normal. Spleen large, with much thickening of capsule; marked deflection of transverse colon. Sigmoid flexure extended upward eight inches above symphysis pubis. Left arm, arteries and veins examined. Extreme vascularity of sheath of radial artery.

A man aged twenty-seven, laborer, of good habits and industrious. A year before admission was said to have sun-stroke. He apparently recovered, but some six weeks ago became sleepless, restless, inclined to go from home without purpose or design; went to the barn as many as twenty times a day and harnessed and unharnessed his horse. Soon his speech became thick as that of one intoxicated, and thus increased till he could not be understood. When he came to the asylum he was irritable and willful, tongue was tremulous, pupils unequal in size. For some months he continued in good flesh and took food regularly, but was very weak-minded. He had at irregular intervals frequent paretic seizures, of an epileptiform character, from which he gradually failed, though he was able to move about the ward in a very imperfect and shuffling way. He had the complacent countenance, the tremulousness and loss of co-ordinate power so characteristic of paresis, but was entirely aphasic. After thirteen months he had a paralytic attack affecting the entire right side, and died on the second day.

Autopsy.—*Head.*—Skull-cap thick, dura mater adherent to calvarium and thickened. The arachnoid was raised over almost entire surface of convolutions, and on being punctured some six ounces of serum escaped. The anterior convolutions

were hardened but the posterior were softened in patches. Near the fissure of Rolando there was a cyst, one-half inch in length and one-quarter in diameter, filled with clear fluid.

Another cyst was found near the fissure of Sylvius, which had destroyed the third left frontal convolution and Island of Reil. There was white fatty degeneration in the meningeal wall of cyst, and complete occlusion of the left middle cerebral artery, extending more than an inch from the bifurcation of the vessel. The right middle cerebral artery was atheromatous, and distended by a firm plug about half an inch from its origin. There were patches of sclerosis in the pons Varolii and medulla.

A man, age forty-eight, of good habits, and though of feeble constitution was in ordinary health till a year before admission; his vision then became disturbed; at times saw objects double, and soon after had an attack of paralysis, affecting his left side. From this he apparently recovered, and for some ten months continued in usual health. At this time his friends noticed a change in him from some peculiarities of conduct, and from his making unusual purchases upon credit. He grew gradually worse, and the day before he was brought to the asylum was noisy, maniacal and talkative; went around the village urging people to attend a large religious meeting he said he was going to hold in the evening; at times asserted he had millions of dollars, and again lamented his poverty; he was up all night and was restless and disturbed; early in the morning he had a slight paralytic attack; when admitted, the tongue and fingers were tremulous; there was marked hesitancy of speech and unsteadiness of gait. He remained in the asylum some five months, and during this time had occasional slight siezures, followed by

increased impairment of speech, muscular tremors, short periods of excitement, and gradual mental enfeeblement. During a remission in the course of the disease, he was removed by his friends, and kept at home about five months. While there, he had numerous slight convulsions, which he attributed to the medicine given him, and almost daily periods of noise and excitement, in which he was threatening in speech and dangerous. Notwithstanding this condition, he requested to be brought back to the asylum. At this time, the symptoms of the disease previously given were more marked, and the pupils of the eyes were much contracted. The convulsions continued, and the patient became very emotional and depressed, cried much of the time, asserted he was going to die, that he had been deserted by his wife; that she had poisoned him with strychnine and quicksilver, and was coming to hang him. After a few months he developed delusions of great wealth, that Queen Victoria was his sister; that he owned the Eastern States and the diamond mines of Brazil, and that his wife commanded the armies of Europe. He gradually grew more feeble, and was noisy and incoherent. A year from time of admission his vision was affected, and he had occasionally short periods of blindness, and after two months he became totally blind. The paretic attacks were severe, and resulted in complete paralysis of the legs. The patient from this time retained his bed, was noisy, destructive, maniacal and filthy. He continued in this condition for some ten months, when he failed and died, two years after his second admission.

Autopsy.—*Head.*—Scull-cap one-half inch in thickness, hard and without diplœ. Dura mater was strongly adherent to calvarium, and on being opened ten and a half ounces of serum escaped.

Sub-arachnoid effusion extensive, and membrane at vertex covered by deposit of lymph. Anterior lobes small and flattened, and convolutions atrophied, especially in right frontal region. There were several small clots over anterior part of right hemisphere. Whole weight of brain, cerebellum and pons, thirty-five and one-half ounces. Gray matter, thin, and whole substance firm. The left hemisphere wider than the right, by a half inch, measured through the corpora striata. The lateral ventricles were filled with serum, and the choroid plexus studded with cysts, like small pearls, arranged in pairs. The optic nerves were atrophied.

Thorax.—Lungs.—Pleurae on both sides firmly adherent to thoracic walls. Of the right lung only a carnified mass remained, which was attached to the vessels. The lower lobe of the left lung was consolidated and contained a small abscess.

Heart normal. Liver friable and fatty. Capsule easily detached. Kidneys normal. Adipose tissue of omentum had been taken up and the mesenteric glands were enlarged and filled with tuberculous matter.

A man, aged 64, laborer, had shown evidence of insanity for some two years, though he kept at work till about six weeks before admission. From that time he became feeble minded and was childish and foolish in action. When admitted the paresis was fully marked, in the tremulousness of tongue and hands, stammering speech, complacent expression and unsteadiness of gait. He was too incoherent to be understood, and was noisy and restless. He rapidly grew more feeble, lost control of the movements of his bowels and bladder. A hæmatoma of the ear was developed. He continued in this condition without special change some fifteen months. There then occurred a breaking down of tissue

which resulted in extensive ulcers of the legs. He had also a large abscess in the frontal region, extending from root of nose to the ear. He ran down, in spite of nourishing food and stimulants, which were administered. He kept up and was about the ward till his death, which occurred suddenly from apoplexy.

Autopsy.—There was a depressed cicatrix along middle line of frontal bone, at the upper part of which was a deep circular ulcer one-half inch in diameter. A number of ulcerations at lower part of left thigh, leg and foot; the ulcers were deep, with clean cut edges. There was an abrasion of skin and a slough at point of left elbow, also large eschars on back, and thickening and contraction of both ears, result of old haematoma.

Head.—Skull-cap and dura mater normal. Pacchionian bodies large and numerous, arachnoid opaque and raised by a large amount of serum. General atrophy of the convolutions especially marked over anterior portions of hemispheres.

Two ounces of serum were found in lateral ventricles, and there was a general thinning of the cortical substance. Weight of brain, cerebellum and pons forty-four ounces. Membranes of spinal cord distended with serum.

Thorax.—Lungs much pigmented; old pleuritic adhesions on right side. Right lung crepitates throughout, lower lobe of left lung consolidated—indurated cicatrices at apex.

Heart.—Large and loaded with fat, one ounce of serum in pericardium. Mitral and aortic orifices half surrounded by a thick ring of ossific deposit. Left ventricle contracted. Firm clot eighteen inches long in aorta.

Abdomen.—Caput coli was found attached by firm adhesions to under border of liver, and the appendix vermiformis

unusually long, lying transversely across the abdomen. Liver very dark colored and friable. Kidneys congested.

Man, age thirty-two, of good habits, had been insane for about three weeks. At first he acted as though he had been drinking, but soon became noisy and maniacal, and, when brought to the asylum, was restrained by wristlets and tied up in a sack. His tongue was dry, and he was hoarse from hallooing and talking. For some two months he remained in an acutely maniacal state, when he slowly improved, and, after some six months' treatment, was in such a comfortable condition that he was removed by his friends. He continued at his work for about six months, when he had a paralytic attack, which was followed by hesitancy of speech and the other most marked physical symptoms of paresis. In this state he was soon after returned to the asylum. He was feeble-minded, but did not manifest any exalted delusions. He had frequent epileptiform seizures, with increasing paralysis; lost control of the movements of his bowels, and finally became helpless. He died some ten months after his second admission.

Autopsy.—Head.—Dura mater adherent to arachnoid, which was raised by large effusion of serum. Two patches of lymph of an inch in diameter, were found over each Sylvian fissure. There was depression of convolutions, and atrophy over whole surface of cerebrum; lateral ventricles were filled with serum, and the choroid plexus was cystic; brain substance firm; weight of cerebrum, cerebellum and pons, forty-four and one-half ounces.

Thorax.—There were several isolated points of congestion and a small abscess in lower part of right lung. Heart normal.

Abdomen.—Liver somewhat fatty; right kidney lobulated; pelvis distended with a limpid and inodorous fluid; ureter

large, and ended in a shut sac near the bladder, with which there was no communication; tissue of kidney atrophied; left kidney larger than right, and ureter had a large opening into bladder.

Man, age thirty-eight, had been accustomed to using liquor freely for some years. Seven months before admission, friends noticed a change in him; he seemed feeble-minded, could not transact business as usual; made mistakes in counting change while making purchases. Soon after he became incoherent; lost power of writing; had paralysis of throat, and marked hesitancy of speech. These, with other symptoms of paresis, existed to a marked degree when he was brought to the asylum. He had exalted delusions regarding his position and wealth, and complained of pain in his head, and of flashes of light before his eyes. He failed constantly, and became more paralyzed. During the whole course of the disease he retained his delusions, and had constant sexual excitement from disease of the cord. He died after nine months.

Autopsy.—Head.—Scalp and calvarium thick; firm adhesions between dura mater and arachnoid, which was opaque over anterior portion of both hemispheres. Small amount of serous fluid effused. Lateral ventricles filled with serum, gray matter, thin; small tumor in choroid plexus. Weight of cerebrum, cerebellum and pons, forty-eight and one-quarter ounces.

Thorax.—Right side, firm plueritic adhesions. In lower lobe of right lung there was an abscess an inch in diameter. Tissue adjacent was cicatrized. Left lung, tissue hepatized. There were two abscesses found, one in the upper and the other in the lower part of lower lobe, and also an old cicatrix existed at vertex of upper lobe.

Liver.—Adherent to stomach by fibrous bands. Mesenteric glands enlarged, and filled with tuberculous matter. They ranged in size from a small pea to those an inch in diameter. The intestines were adherent to the abdominal walls in many places, especially about pelvic region.

Man, age seventy-four, of intemperate habits; had been in the asylum twice before, and was last discharged, recovered, about five years ago. He subsequently returned to his intemperate habits, and had chronic rheumatism and gravel. Three months before admission he became sleepless, restless, lost appetite and flesh; was gloomy and depressed; asserted he was going to hell, and that ruin was impending. "To get on faster and to get out of trouble," he cut his throat, and, on the third day thereafter, was sent to the asylum. He continued melancholic, restless and silent, lost in strength and became filthy in his habits, and, though given concentrated food and stimulants, failed slowly and died after a month, suddenly, of apoplexy.

Autopsy.—Head.—Skull-cap thick and dura mater firmly adherent. A clot one inch by one-half was found at vertex; also a large clot in longitudinal sinus. There was considerable serous effusion beneath arachnoid, over superior surface of right hemisphere. Convolutions were atrophied at several points. Brain tissue firm; one-half ounce of serum in lateral ventricles. Weight of cerebrum, cerebellum and pons, was forty-nine and one-quarter ounces.

Thorax.—Firm adhesions existed between pleural surfaces of each lung; the right was studded with miliary tubercles, and the left contained numerous small abscesses. Heart, hypertrophied.

Liver.—Capsule easily detached; tissue friable and fatty. Colon contracted, and deflected downward to within two inches of symphysis pubis.

Man, age sixty-three, good habits, strong hereditary tendency to insanity. Patient had been a healthy, hard-working man; ten years ago he had an attack of acute mania, but recovered in a short time, and remained well until time of present attack, some two months before admission. Then, having been reduced by hard labor and overcome by heat, he became sleepless, talkative and excitable, but continued his work. He gradually grew worse, got up and went to work at night, and went to the barn with a lighted candle; talked incessantly; was irritable, almost constantly in motion, gesticulating wildly; repeating some stories about himself and family. When admitted he had lost flesh, had hectic flush, twitching of muscles of face, and eyes were injected. Said he knew he was not right and came willingly. The third day after, he died suddenly, apoplectic.

Autopsy.—Head.—Scalp thin; ecchymosis over right temporal muscle. Dura mater adherent to calvarium. A large clot of blood was found, covering almost entirely the posterior lobes of the cerebrum, extending anteriorly an inch beyond the fissure of Rolando. The arachnoid was deeply congested, and the vessels engorged; convolutions were stained with blood and softened in patches. Several bony plates were found attached to inner surface of dura mater, situated over left anterior lobe. They varied in size from a small speck to a piece three-quarters by one-half inch.

Thorax.—Old pleuritic adhesions over surface of both lungs. In anterior aspect of upper lobe of right lung, there was an abscess about three by one and one-half inches, filled with

thick, light colored pus. Tubercular and pigmentary deposits were found in lower lobe of same lung. Left lung normal.

Heart.—Small, surface shriveled, fibrinous deposits on anterior face, slight pericardial effusion, valves normal. Liver was enlarged, and extended downward two inches below normal line. Hæmorrhagic spots were found in peritoneum, varying in size from a small point to a space three inches in diameter.

Man, age eighty-three, of good habits, was a hard-working, industrious and ordinarily healthy man. He had an ulcer on right leg, which discharged for fifty years. Some five months before admission he caught cold, and from this time a change was noticed in him. He became suspicious of his family and friends, said they were all conspirators, and he would not live under their roof, and tried to get away. He was cross and irritable, became profane, obscene, noisy and maniacal, and developed the delusion that he was going to make a machine with which he could make the money to pay the national debt. He slept little, but ate fairly. In the asylum he continued as described, repeated the delusions given; was abusive of physicians and attendants, and at times had paroxysms of increased disturbance and violence. After some fifteen months, and without any apparent change in his physical or mental state, he suddenly passed into an unconscious condition, from which he partially rallied after a few hours. In a second attack of like character, he died in the evening.

Autopsy.—*Head.*—Calvarium hard and without diplœe; dura mater firmly adherent to parietal and frontal bones; arachnoid of an ochre yellow color, over both frontal lobes.

Slight serous sub-arachnoid effusion; cerebral sinuses filled with fluid blood. Atheromatous degeneracy of ophthalmic arteries, also of several parts of circle of Willis. The convolutions were of a yellow or rusty brown color, particularly in anterior lobes of cerebrum, and were softened. Ventricles were distended with limpid serum. The corpus callosum was softened and easily torn. The exterior portions of cerebellum were softened, and section of the medulla showed sclerosed portions.

Man, age 27, of good habits, had four years ago an attack of inflammation of the lungs, and since that time has had cough. About a year ago he had hæmorrhage from the lungs. For two months he had given evidences of insanity, left his work, wandered about the streets, drank liquor to excess, neglected to provide for and abused his mother. He soon became noisy and violent, had exalted delusions of wealth, hired a store at a high rent and stocked it with sewing machines. When asked for pay for them he drew a knife and threatened to kill the person. He was arrested by the police and sent to the asylum. Here phthisis was diagnosticated. He was noisy, mischievous and maniacal, asserted his delusions of wealth, and made numerous efforts to escape. This state of excitement continued for a year, after which the patient became more feeble minded and filthy in his habits. He emaciated, grew more feeble in health, and died with colliquative diarrhoea some sixteen months after admission.

Autopsy.—Head.—Body much emaciated. Adhesion of meninges at vertex with considerable exudation of lymph and serum. Pacchionian glands very large and numerous. A thin clot of blood was found between the skull-cap and dura mater in right parietal region, and vessels of meninges were

engorged with blood. Corpora quadrigemina, pons Varolii and medulla much softened. Weight of brain, fifty-five ounces, of cerebrum alone forty-eight ounces.

Thorax.—Firm pleuritic adhesions on both sides. Both lungs studded with tubercles and contained many small cavities.

Abdomen.—Liver hard and fatty. Mesenteric glands enlarged and filled with tuberculous matter. Kidneys normal.

A man, age fifty-two, a moderate drinker. Three years ago was injured by being thrown from a buggy and striking upon his head, and from that time manifested some changes in mental characteristics. He continued work at his trade for two years, though he constantly grew more feeble-minded, lost his memory, had delusions of the possession of property; claimed a building he once owned and attempted to eject the occupants. When admitted was quiet, but childish; unable to reply to questions—repeated same thing over and over; ate and slept well and had not lost flesh. Although placed on use of tonics and concentrated nourishment, he failed steadily; in a few days took his bed, and died in six weeks.

Autopsy.—*Head.*—Firm adhesions between dura mater and skull-cap; also, between dura mater and arachnoid over both hemispheres; considerable serum effused beneath arachnoid. Lateral ventricles filled with serum; brain tissue soft. Weight of cerebrum, cerebellum and pons, forty-four and three-fourths ounces.

Thorax.—Pleuræ adherent. Both lungs contained numerous small abscesses, and lower portions only crepitant.

Man, age fifty-nine, of good habits, had for some years been slowly losing the property which he had accumulated in early life. This worried him much, and he worked hard to repair

his losses, but without avail. Some two years before admission first manifested insanity; became irritable and fault-finding; said his friends intended to injure him, and that they were responsible for his losses. He soon began to wander from home, to denude person, became feeble-minded and careless in his habits. In the asylum he gradually failed in mental and physical strength; was talkative, incoherent, restless, became helpless, and demanded the care of a child. He died after four months.

Autopsy.—Head.—Skull-cap thick, and adherent to dura mater by firm, fibrous bands. Almost entire surface of left hemisphere was covered by a thin clot. Eight ounces of serum were effused into cranial cavity. There were three cicatrices in the left corpus striatum, and two in the right. Lateral ventricles filled with fluid. Vessels at base of brain atheromatous and brittle.

Thorax.—Strong adhesions existed between pleural surfaces in left side, and large portions of the lung were hepatized. Right lung was destroyed; a mass about the size of a fist remained attached to large vessels, and this contained an abscess.

Heart.—Pericardial sack contained two ounces of serum. Muscular walls thin, soft and easily broken; liver and kidneys normal.

Man, age thirty. Served with distinction through the recent war; during the time was sick, and said to have had camp fever. Subsequently he had chronic diarrhœa, and returned home in impaired health, but entered upon business, which he conducted with energy and vigor beyond his strength. After some two years he had a convulsion, in which there was complete unconsciousness, skin cold and bathed in perspiration,

pulse feeble and slow. This was followed by muscular tremors of face and hands, and by temporary loss of speech. From this time his health failed, and he had periods of great nervousness and restlessness; at times was depressed, and again irritable and suspicious, and steadily lost in mental and bodily vigor. Afterward he had occasional slight attacks of loss of speech, and at other times would be interrupted in the midst of a sentence for an appreciable length of time, but never lost consciousness. His appetite was variable and he had attacks of nausea with headache and sleeplessness. The aphasic condition became more pronounced, and he had vertigo, loss of memory, and was at times extremely irritable. There was also general emaciation and unnatural muscular activity, with loss of appreciation of his business affairs. Eight months before his admission had several attacks described as fainting spells, after which his mental powers failed more rapidly. He had no pain, cough, or expéctoration, though his general condition indicated tubercular disease of the lungs. His speech became so imperfect that at times it was difficult to understand him, and though he walked about and used his hands and arms freely, he wrote illegibly and incoherently, but seemed to have an appreciation of this, as he frequently rewrote several times. Somewhat later he had paralytic attacks, with convulsions, followed by more or less maniacal manifestations.

Three months before admission, he became almost completely aphasic, was restless, sleepless and at times turbulent. Two weeks before admission he had a severe attack of convulsions, after which he manifested such delusions toward his family and those about him, that it was necessary to bring him to the asylum. For a few weeks he seemed quite comfortable, walked and rode out, ate and slept well. He was unable to speak, but

indicated his wants by signs and occasionally by an imperfectly uttered word. A few days afterward he had convulsions, followed by paralysis, after which he gradually failed, and died in eleven weeks.

Autopsy. — *Head.* — Skull-cap thick. Brain small and shrunken; longitudinal sinus contained a firm, white clot at vertex. Large, sub-arachnoid, serous effusion. Left hemisphere larger than right; brain substance firm. Weight of encephalon forty-two and one-quarter ounces.

Thorax. — Universal and firm adhesion of right lung to thoracic walls. Abscess extending from apex to base, and capable of holding more than a quart of fluid.

Lung tissue studded with tuberculous deposits. Left lung adherent, an indurated cicatrix at apex, and an abscess as large as a hen's egg in middle portion of lung.

Heart small, left ventricle contracted and empty, right ventricle hypertrophied, a small patch of atheroma in aorta. Liver large and fatty, deflection of transverse colon to symphysis pubis, stomach softened and easily lacerated.

Man, age forty, good habits, and for a year before admission had been failing in health. Some three months before, he began to lie in bed, without apparent cause, made no complaint of pain or illness, and when remonstrated with by his wife attacked her with a hammer. He wandered off in the woods and was with difficulty returned; was then moody, would not answer any questions addressed to him and refused food; circulation sluggish, face and hands deeply congested. After admission he continued gloomy and despondent, moaned and groaned, took food sparingly. After some six months he refused all food and was fed by stomach tube. He, however, soon took nourishment voluntarily, was noisy, profane

and talkative, offered large sums of money to be cured. When he had been some ten months in the asylum he had an attack of phlegmonous erysipelas, involving the whole of the right leg, under which he gradually failed and died.

Autopsy.—*Head.*—Strong adhesions between skull-cap and dura mater; longitudinal sinus filled with dark clot; considerable subarachnoid serous effusion; opacities in arachnoid at several points. Convolutions atrophied over parietal portions of both hemispheres. Weight of encephalon, fifty and three-fourth ounces.

Man, aged twenty-one, good habits; father, grandfather and uncle have been insane. Was a strong, large framed and vigorous man, and had always been healthy. Ten months before admission, he received an injury to the head from a lever. The blow stunned him, and “made a strange feeling all over him.” He complained, immediately after this, of a pain in his head, at times sharp and darting, and again heavy and constant. He, however, continued to work and manifested no mental change till some five months ago. He lost flesh and sleep; complained of chilliness; was moody; talked to himself; laughed in a silly, foolish way; memory and attention failed him; would forget what he was doing when he attempted anything. He gradually became restless and sleepless; was out of bed at night and tried to get out of doors. Four weeks ago he was very drowsy and slept much; and during last two weeks was quite incoherent; neglected care of person; when out in the rain would take off his coat and carry an umbrella without raising it. Recently, he has complained of dimness of vision; could not see across the room; skin sallow and greasy; gums pale; pupils large; eyes injected; lips deeply colored.

After admission he was gloomy and depressed; asserted he could not live, and would die in a day or two; mind was feeble and inactive, and he would only reply to questions on being urged. After two weeks, he was noisy, maniacal and destructive; opposed care; endeavored to get away. He refused all food, and it was administered by stomach tube. The patient lost in flesh and strength; tore up his bedding; suddenly struck at persons without warning; was visited by his brother, who remained with him a few days. At first took food from him, then suddenly seized the plate, threw it at him and pursued him around the room with the knife with which he was eating. He wasted rapidly, and died in six months.

Autopsy.—*Head.*—Calvarium very thin in spots and translucent at vertex. Dura mater thickened and adherent to skull-cap. Points of extravasated blood were found beneath membranes, and the convolutions were softened in parietal regions. The vessels were much congested, and those at base of brain were friable.

Man, age 62, had been insane some years, entertained delusions that his friends had robbed him and entered into a conspiracy to get possession of his property. Memory was seriously impaired; would forget business transactions from day to day; became miserly in his habits; hoarded up articles which had been cast away as worthless; charged neighbors with having stolen his watch; was untruthful and feeble in mind. A short time before admission was disturbed by a lawsuit which had been entered against him. At the trial was excited and talkative, and wanted to address the jury in an irrelevant and incoherent manner; after this became more disturbed, lost sleep and appetite and emaciated rapidly; he soon

was maniacal, noisy, profane, obscene in speech and resisted care. In this condition he was brought to the asylum. On the way he was destructive of clothing, broke the glass in the car window and cut his hand severely; was thin in flesh and feeble. He continued noisy and maniacal, gradually failed, and died a week after admission.

Autopsy.—Head.—Dura mater slightly adherent to arachnoid, considerable sub-arachnoid effusion; left lateral sinus plugged with a highly organized fibrinous clot, two inches in length; right sinus contained a white clot, not so highly organized; membranes easily detached; convolutions softened in places and tissues pulled away with membranes. Weight of encephalon fifty ounces.

Thorax.—Right lung adherent over entire posterior surface and lower lobe emphysematous; left lung also adherent and emphysematous.

Abdomen.—Liver fatty; mesenteric glands enlarged and filled with tuberculous matter.

Man, age 46, of good habits, had an attack of acute mania twelve years ago, and was treated in the asylum. He was discharged, recovered, and remained well till two years ago, when he fell from a tree and was unconscious for four or five days. For a year afterward he suffered from pain in the dorsal region, lameness and sometimes tenderness. He also had much pain in the eyes and was obliged to protect them from the light; pupils were dilated. During the winter he did some light work, but was excitable and talkative. In spring he became melancholic and depressed, and remained in the house complaining of the noise of any one talking, and of the jarring of going up or down stairs. He was feeble, lost flesh, walked with difficulty and slept under sedatives. Appetite

was variable and bowels irregular. He gradually grew worse till time of admission. He was then restless, talkative and maniacal, pressed his hand to his head as if in pain. At times he was quiet, would not reply to questions or manifest any consciousness, then had periods of restlessness and incoherence, with spasmodic twitchings of muscles of face and upper extremities. He became more maniacal, threw himself about, attempted to injure himself, refused food, tongue became dry, secretions offensive, evacuations involuntary. He failed rapidly and died in two weeks.

Autopsy.—Head.—Dura mater thickened and adherent to frontal and left parietal bones by strong fibrous bands. Some sub-arachnoid effusion. All the vessels were much enlarged and membranes congested. Convolutions of the cerebrum were softened in many places. Some were rust and others violet colored. The cerebellum was of a soft and creamy consistence. Left lateral sinus was filled with a firm, fibrinous clot, some two inches in length. A microscopic examination of the clot presented a laminated appearance, formed by the layers concentrically arranged. The exterior of the clot next the dura mater showed indications of fatty degeneracy. There were also numerous connective tissue elements scattered through the clot where it adhered to membranes of the sinus. Weight of encephalon forty-one ounces.

Thorax.—Whole surface of right lung adherent to pleura. Heart, normal. Abdomen, all the organs were in a normal condition.

Man, age nineteen; good habits. Had epilepsy for nine years prior to admission. Nothing further was known of his history. His mind was feeble; he did not converse or manifest any interest in his condition or surroundings. He con-

tinued to have frequent and severe seizures, lost control of the movements of his bowels and bladder, and retained his bed most of the time. After eighteen months he died in a fit.

Autopsy.—Head.—Dura mater thickened. Several bony plates were found on inner surface of the membrane, two of which had sharp projections. They were situated near the longitudinal sinus, one on either side. The largest was one and one-quarter inches in length, and one-half inch in width. The longest projection was about three-sixteenths of inch, and impinged on the pia mater, but had not lacerated it. The interior surface of all the plates was roughened and ridged. They were held in position by fibrous bands attached to the dura mater. The *pia mater* was much engorged, and the vessels were enlarged. Anteriorly there were points of extravasated blood beneath the membranes.

Thorax.—There were several cicatrices, a small abscess, and tuberculous deposits in apex of left lung. Right lung normal, heart enlarged, soft and fatty. Abdomen, liver normal, kidneys congested and filled with blood. A large amount of bloody serum escaped from spinal canal, and the whole substance of cord deeply congested.

Man, aged twenty-five, intemperate in his habits. Father and mother had for years kept a low drinking saloon and house of ill-fame, and both had served sentences in state prison as receivers of stolen goods. After their release, the husband obtained a divorce from his wife and lived with another woman, to whom he claimed to be married. With her he resumed his former occupation. The place was well known to the police as a resort of criminals and abandoned characters. The patient had received a common education, and been employed as clerk in various offices, and on the canal. From

his own statement he had led a dissolute life, and had contracted venereal disease, which his condition, on admission, verified. His health having failed, he came home, boarded with his father, and engaged in the insurance business, but without success. He continued his evil associations, and gave himself up largely to drinking and dissipation. During this time he often threatened the life of his father and stepmother, secluded himself in his room, and shortly before admission had symptoms of fever, was described as delirious, out of bed and around the house with only his underclothes on, drank freely of liquor, became abusive, threatening and violent. The police were called in at times to quell the disturbances. One day a boarder in the house hearing a noise in the room occupied by patient, went up stairs and found him seated at the head, with a pistol in his hand. The patient discharged it at him, and the bullet passed through the right forearm. The injured man retired and soon after heard three pistol shots fired in quick succession. The police, summoned by the noise, went into the patient's room and found the stepmother lying dead on the floor. A ball had penetrated the chest, passed through the right lung, removed a portion of the wall of the aorta and lodged in the left lung. The patient was seated upon the side of the bed reloading the pistol. He was removed to the jail, and on the inquest gave a contradictory, confused statement of the affair; said, "the woman was trying to get into the room to kill me; I cocked the pistol when I saw she was going to kill me; I shot the bullet and it went plumb through her heart." He also made other statements giving a different version of the affair. An investigation was made before the county judge; he was declared insane and sent to the asylum. On admission gave a very long history of

his case, justified the shooting on the ground "that his step mother had attempted to poison him, and that God had ordered him to send her to hell without a moment's warning;" that he had shot the man "because he had brought him bad water to drink." He was then in flesh; conjunctivae pearly, tongue heavily coated, features sharp and skin pale. He had two sinuses opening into palm of left hand, one between ring and fourth finger of right hand, one on left foot near big toe, and one in same position on right foot. For the first few days he was about the ward, talked incessantly, maintained his assertions as to the killing, and its justification, then became more feeble; was complaining, fault-finding, whining in speech and childish, asked for changes in room, in bed, in diet, ate and slept well, though he asserted he did not. After some two weeks there appeared an extensive swelling of left leg and foot, resembling somewhat phlegmonous erysipelas. The skin was raised in large patches, and blood and serum were effused beneath. There were some ten or more sinuses in region of buttocks discharging a purulent serum. The patient grew more feeble, and was evidently failing. Three days afterward, at about midnight, he had an extensive hemorrhage; when physician reached the bedside the bleeding had ceased. He was pale and cold, complained of chilliness, and teeth were chattering. Under the buttocks was a large pool of blood, and the abdomen was swelled and painful. He seemed perfectly conscious that he was sinking, and died at six o'clock in the morning.

Autopsy.—External appearances. Abdomen tympanitic. Left leg much swelled by infiltration of serum and large gangrenous ulcer eight by four inches. Another ulcer extended over arch of left foot toward internal malleolus. A deep sinus

existed near head of left fibula. On the right were two sinuses, one opening between great and second toes, and another more superficial near ankle joint. On right knee was an inflamed spot two inches in diameter, the skin was elevated by dark colored effusion beneath. A deep sinus opened between thumb and index finger of left hand, and another between ring and little finger of same hand. There was also one corresponding to this on the right hand. The sinuses opening in sacral and gluteal region, some ten in number, were found to communicate with each other, and formed a common abscess. Some of them were filled with thick yellow pus, and others with partly disorganized blood-clots.

Head.—Calvarium thin and soft; slight adhesions between dura mater and arachnoid; small amount of serous effusion under arachnoid; more abundant about medulla and base of brain. Brain tissue pale.

Thorax.—Small quantity of serum in pleuritic cavities. Lower lobe of left lung hepatized. Pericardial sac distended with about three ounces of a greenish fluid.

Heart.—Substance pale; right ventricle filled with frothy, watery blood; left ventricle empty; valves normal.

Abdomen.—Whole cavity distended with pus and serum, of a greenish color. Omentum firmly bound to intestines, and these to each other by adhesions. On attempting to remove the omentum, the intestines were torn through. The ileum was gangrenous near cæcal valve, and other portions of it were deeply congested and softened. Transverse colon highly inflamed; mesentery deeply congested, and the gland much enlarged and filled with cheesy material. Peyers' patches enlarged and ulcerated; pelvic cavity filled with a very offensive yellow pus; pancreas soft and of a yellow color; spleen

contracted. Both kidneys were enlarged and capsules easily detached.

Liver.—Convex surface covered with a thin layer of pus and lymph; tissue pale and fatty.

Microscopic examination of liver showed extensive fatty degeneracy. In fresh specimens, treated with ether, fat was dissolved.

The tubuli-uriniferi were enlarged and contained either an entire cast, or a portion of one, and transverse sections showed them choked up with debris of epithelium. Connective tissue was granular, particularly about the Malpighian bodies. The pancreas was in a state of fatty degeneration.

Man, age 29, good habits; no hereditary tendency to insanity. Patient was never robust, but had not suffered from any special form of disease. While in school, and afterward in college, was a very ambitious and successful student and took a high position in his classes. After graduation, continued his studies as a teacher, and more recently as a student of theology. Was a person of strong religious feeling, devoted to his profession, and observed with strictness seasons of fasting and exercises of his church, and was much given to long periods of prayer and seclusion. By these practices lost sleep and flesh, and was reduced in health and became gloomy and despondent. During the period of Lent two years ago, while in this state of mental and physical depression, and engaged in devotional exercises, he described himself as having had a sense of wonderful peace and confidence with hallucinations of hearing; heard the Saviour telling him to throw himself from the window and all would be well. He jumped to the sidewalk and sprained his ankles. From this injury he was confined to his room some weeks and was then taken home.

Here, against the advice and remonstrance of his friends, he persisted in the observance of fastings and in devotional exercises, was sleepless out of bed praying, and during the day prayed much with individuals and talked upon the subject of religion. He gained somewhat in flesh and strength; left home and canvassed for religious papers. He was at this time more comfortable and manifested more self-control, but was not well; dwelt much upon his spiritual condition. In the winter became more disturbed, lost sleep, called upon members of the clergy at night to get them to pray for him, and was taken by the police to his boarding-house. Father was informed and took him home. He was then inclined to wander about, seemed lost in meditation, abstracted and bewildered. A year from the time of attack was brought to the asylum, was in good flesh, eating well, but sleeping irregularly, pupils dilated, facial lines obliterated, talked coherently and gave his own history, verified by his father. For a few days he was quiet and comfortable, expressed a strong desire to get well, and a readiness to co-operate in any course of treatment for his relief—then passed into a maniacal condition, was noisy, excited, refused food or drink, threw himself about, making every effort to injure self; tongue was heavily coated and dry, urine contained albumen and pus. After a few days took food willingly, though still controlled by delusions and suicidal. At table suddenly stabbed himself in the cheek with a fork, and dislocated his thumb in an attempt to pull it off. He then became quiet, talked freely, and with regret of his suicidal efforts; ate and slept well, and employed his time in reading and studying. About a month after this became again somewhat depressed and gloomy, seemed thoughtful and gave evidence of a returning paroxysm. The next day after this

change was noticed, while walking the ward he stepped into a room and was found in a few moments with the humors of both eyes escaping. Nothing was found upon his person with which it was supposed the injury could have been inflicted. The patient afterward acknowledged that, influenced by the Bible saying, "if thine eye offend thee pluck it out;" he had inserted a pin deeply into each eye and then having torn through the cornea he had pressed out the humours. The injury produced total blindness. He immediately became maniacal, took nourishment sparingly, and at times refused food. At periods he conversed pleasantly with his friends, expressed regret for what he had done, at other times justified it as the only means of salvation. He slowly failed and died three months after admission.

A woman, thirty years of age, single, seamstress, with no hereditary tendency to insanity; but was of a highly, nervous and excitable organization, emotional and irregular in feeling; at times buoyant and lively, and then gloomy and depressed. Her health during early life was delicate, though she suffered from no definite form of disease. At the age of twenty, in April, 1862, she was seized with pain in the head. It was of short duration, but very severe, and during its continuance the patient was delirious. Attacks of the same character, both in the severity of the pain and the mental disturbance have occurred since, at intervals of from one to three months.* In 1864, she had acute rheumatism, and in 1865, a severe attack of diphtheria.

After the local disease of the throat had apparently subsided, vomiting supervened, and was repeated every few hours for

* From the subsequent history of the patient, especially while in the asylum, we are led to believe that these attacks of delirium took place at menstrual periods.

some five weeks. To relieve this condition and procure sleep, hypodermic injections of morphia were successfully employed, for about one week, and the patient rapidly regained her health. Some two years after this, or in July, 1867, she had an attack of inflammation of the bowels and peritoneum, and for four weeks was delirious most of the time. She improved somewhat in health, but for the four months succeeding had frequent attacks of frenzy, during which she often threatened to take her own and her mother's life, and became very difficult to control. In October following, she had improved so far as to pass from the immediate charge of her physician. Soon after this, he ascertained she was using hypodermic injections of morphia, to relieve pain in her limbs and different parts of her body. I quote from his letter :

“I was informed that she was using it (morphia) to a considerable extent, and called immediately to explain to her the effects and danger attending the practice. I believe every effort was made that could be to prevail upon her to desist, but all to no purpose. She was cunning and artful, and would almost always study out some plan to get the morphia. She has used as much as two drams in a week, in one or two well authenticated instances. The usual amount was one dram per week. She used but little, if any, for three or four months before she was sent to the asylum, for it was very difficult for her to get it. She has acted very strangely ever since her first sickness. She has been truly a mystery, which no one could solve.”

Her mother says that for years she has complained of pain, and pressed her hand on either side of her head, with the exclamation, “ Oh, mother, mother, I shall die ! ” That for six years she has complained of such soreness of the head that

when she passed her hand over it, in smoothing her daughter's hair, she would cry out: "Oh, mother, don't; it hurts me so!" That five years ago, in 1867, she was obliged to call in help, as the patient threatened and intended to take her own life. That both before and after she began the use of morphia, her conduct was peculiar and erratic; that she was emotional, and easily disturbed by trifles. That after the morphia habit was known, her conduct for many years preceding was wrongly attributed to this cause.

A few weeks before she was sent to the asylum she passed into an acutely maniacal condition, in which she was sleepless, ate little and irregularly, lost flesh and strength rapidly, and became quite feeble. She was destructive of clothing, pulled her hair out, was noisy, incoherent and violent; opposed care, wandered about, and was with difficulty controlled.

In this condition she was admitted to the institution on the 5th of May, 1871. She was carried to the ward and placed in bed. Examination revealed scars and ecchymosed spots, covering nearly the whole of the body which could be reached by her own hand. She asserted that she had employed the hypodermic injections for three and one-half years, once, and much of the time twice a day, making, in all, about 2,000 injections; that, during the last few months of its continuance, she had used a dram and one-half of morphia per week; that she inserted the needle perpendicularly to the surface, and often carried its full length into the tissues. For two days she was sleepless, and retained no nourishment. Chloral, in thirty grain doses, was then administered, which was tolerated by the stomach, and secured sleep. The vomiting gradually became less frequent, and soon ceased. She ate well, gained flesh and strength, all maniacal symptoms subsided, and in twenty days

she was up and about the ward. Menstruation, as she said, had been suppressed for two years. As she complained of pain in the back, and other symptoms which usually preceded it, she was placed on use of capsules of apiol, and on the 24th of June, began to menstruate, but the flow was scanty, and accompanied by much pain.

During the month following, she steadily gained in mental strength, and became quite stout. At time of next menstrual period, the right breast swelled to an extraordinary size, so that we were obliged to suspend it with adhesive straps. It was hard, and extremely sensitive to the touch. This condition of swelling and tenderness extended in a narrow ridge to the spine. The state of the breast was at first supposed to be owing to the sympathetic action of the organ, with the renewed activity of the menstrual function. For two weeks applications were employed, without success, to relieve the pain and tension. At this time, on the 13th of August, the patient, in rubbing her hand over the breast, discovered an elevated point, just under the skin, which on pressure gave a pricking sensation. This was cut down upon, and a broken needle extracted. On the 15th, another needle was removed. The breast was now inflamed and extremely sensitive. August 28 another needle was taken out. August 29 menstruation began again; the flow was profuse, and she became at once delirious; was talkative, restless, profane and obscene, and pulled her hair out. She continued in this condition some twelve hours, and, as she stated, the next day, was entirely unconscious of what occurred.

From this time till September 28, from one to five needles were removed daily from the breast. Menstruation then occurred again, and was characterized as before by a similar

attack of mental disturbance. After this, during the months of October and November, needles were taken from various parts of the body ; from the left breast, the abdominal parietes, the mons veneris, the labia and vagina. Of these latter, some passed across the urethra, and rendered urination difficult and painful ; others across the vagina, either end being imbedded in opposite sides. Some were removed from the thighs, from the leg down to the ankle, from the buttocks, from about the anus, from the back as high up as between the shoulders. The largest number extracted in any one day was twelve.

On one occasion ether was administered, but the difficulty experienced in bringing her under its influence, and the mental disturbance produced by it were so great that it was not again resorted to. During the whole period, to her final illness, she retained her flesh, though she ate and slept irregularly, under use of tonics and sedatives. She was in a variable mental state, at times irritable, petulant, fault-finding, attempting to create ill-feeling between attendants, and demanding unnecessary care and waiting upon. At other times she was abnormally cheerful, gay, pleasant, and fulsome of praise of all around her.

For the first two months but comparatively little pain was felt in the extraction of the needles. The skin was thickened, harsh and dry, and almost insensible from the prolonged and distributed use of the injections. Afterward she suffered acutely, and often begged with tears that their removal might be postponed from day to day. About a month before death, she had an attack of localized pneumonia, affecting the lower portion of right lung ; this was accompanied by stridulous breathing, spasm of the glottis, globus hystericus, crying, and other hysterical manifestations. It was followed by an attack

resembling muscular rheumatism, characterized by great pain and hyperæsthesia of surface; the right arm was swelled, hot and extremely sensitive; it was supported on a pillow and kept bathed in anodyne lotions. She lost appetite and sleep, became much depressed, and gave up all hope of recovery. Her tongue became dry and brown, pulse rapid, secretions offensive, and mind very feeble. A diarrhœa supervened, and the evacuations of bowels and bladder were involuntary. She became unconscious, and finally comatose, and died on the 25th of December, 1871.

No needles were removed during the last two weeks; 286 were taken from her body during life; 11 were found in the tissues after death; 3 were passed from the rectum during sickness; making a total of 300 needles and pieces. Of this number, 246 were whole, and 54 were parts of needles. One was a No. 1 sewing machine needle, and several were bent. They varied in size from No. 4 to No. 12. As regards position in the body, they were distributed about as follows: In right breast, 150; left breast, 20; abdomen, 60; genitals, 20; thighs and legs, 30; back, 20. Of those removed after death, 5 were found in the right and three in the left breast; one in a small abscess in the epigastric, and one in the right iliac region, the point impinging upon the peritoneum, which was discolored with rust; and one in the upper part of lower lobe of left lung. The presence and position of the needles were indicated to the patient by the pricking sensation occasioned by muscular movements. They were removed in a few instances at first by cutting down upon them. This proved to be a painful, and, from the movements of the needles in the tissues, a difficult process. Hæmorrhage from the small vessels, at times, gave some trouble. Afterward, by manipulation, the ends of the

needles were engaged between the thumb and forefinger, and the points, forced through the skin, were seized and the needles extracted with forceps. Sometimes much force was required to withdraw them. They changed position quite readily, and frequently moved from one to two inches in the day. They produced little local irritation or trouble beyond the pricking sensation, and did not seem to have contributed in any notable degree toward producing the fatal result. In regard to the presence of this large number of needles in the system, no information could be obtained. The patient repeatedly and persistently denied any knowledge of having introduced them, either by the stomach or through the skin. Her mother, who visited the asylum, could throw no light upon the subject, and was entirely ignorant of the fact until informed by us. She, however, recalled the circumstances that the patient purchased at one time ten papers of needles, and could account for only two of them. They were not obtained or introduced while in the asylum. She was under strict surveillance, and had no means of obtaining any number of needles, and those removed were all rusted and bore evidence of having been a long time in the body. The stomach was closely examined after death, and was in a perfectly healthy condition, with no evidence of any previous inflammatory action.

The only theory, which seems to us at all tenable, is that they were introduced through the skin, while she was under the influence of morphia, hypodermically administered, and while suffering from hysteria. That some were found in positions where they could not have been inserted by the patient, can be accounted for by their movements in the tissues, which were observed so often during the life of the patient.

The diseased condition of the brain and its membranes was a cause sufficient to account for the abnormal mental action and conduct of her who had been “truly a mystery which no one could solve.” We close this remarkable case with a transcript of the *post-mortem* examination.

Autopsy.—Rigor present, body well nourished; anterior surface thickly studded with small cicatrices; abdomen covered with thick layer of fat. A small abscess in abdominal wall, two inches above umbilicus, three inches by one and one-half, was filled with pus, and contained one needle. A second abscess, two inches above and to the right of the symphysis pubis, immediately under Poupart’s ligament, contained another needle; this pressed upon the peritoneum, which, though discolored by rust, was not inflamed. From the right breast one whole and four broken needles, and from the left one whole and two broken needles, were removed.

Head.—Arachnoid opaque, and thickened over right hemisphere. The left hemisphere was covered by a thin layer of pus contained in the sub-arachnoid space. Marked depression of convolutions at vertex of both hemispheres; the brain substance was firmer than normal; the ventricles were empty, and the choroid plexus contained numerous small cysts upon its surface, filled with serum.

Thorax.—The lower lobe of the right lung was hepatized. A whole needle was found in the upper part of the lower lobe of the left lung.

Abdomen.—The liver was soft and fatty, and the spleen enlarged; kidneys were normal. The stomach was subjected to a critical examination. It was found normal, and there was no evidence that the needles were introduced into the system through that organ.

Woman, age forty-seven; married; native of New York; no insane relations; patient usually enjoyed good health until about a year before admission, when she lost in flesh and became wakeful, due to overwork; for a year was gloomy and despondent; lost all interest in her household duties; said everything was wrong about her house; became suspicious; said she was to be poisoned; cried and moaned much of the time; talked often of suicide; in attempting it, took one ounce of laudanum, which she vomited as soon as swallowed; at another time, hung herself behind a door in a hoop skirt; was detected and then closely watched; for some time carried a butcher knife, and at night placed it under her pillow without knowledge of her friends; on admission, was melancholy; seemed to realize that she was sick, and confessed that she was insane; she slept well the following night and in the morning was cheerful; talked freely of her condition, and expressed herself well satisfied that she was brought to the asylum; in the afternoon of the same day spoke of the disgrace of suicide, and said "but for my husband, I would have been dead long ago;" she retired as usual in an associate dormitory the following night, and seemed quite cheerful; at about nine P. M., complained of slight colic, which was soon relieved; at one and three A. M., the following morning, the night watch found her sleeping; at four A. M., she got out of bed and walked a few times up and down the room, waking some of the patients and conversing with them; she then retired and the patients went to sleep; at five A. M., again visited by night watch, when she found life extinct, but body warm; at once reported to physicians; on examination, her hands were bloody, night dress thoroughly saturated with blood;

the hair matrass and straw tick contained clotted blood, and a pool was under the bed; in the bed was found a small piece of the rim of an earthen vessel, about one by one and a half inches in size, with one very sharp edge; this was covered with blood; on the floor were two other pieces of freshly broken earthenware, which, with the first piece, fitted exactly the broken space in the chamber under her bed; during all this, none of the patients were awaked; the body was colorless; two cuts were found in groin, parallel to a line drawn from the anterior superior spinous process of the crest of the ilium, to a point two inches below the symphysis pubis; each was four inches in length, and at the deepest point one and a quarter inches, dividing the femoral artery completely on the left side, and cutting a small opening in the femoral, on the right side; on the right side, there were four small cuts besides the deep one; there were also numerous scratches in left elbow joint; the husband subsequently stated that he had frequently noticed her reading a school book on anatomy and physiology.

Woman, aged 39; married, no children, good habits; native of Ireland. She was always a hard-working woman and enjoyed good health, with the exception of an attack of muscular rheumatism. In August last had a fit; could not speak for a few minutes afterward; complained of numbness of hands and feet; about four weeks before coming to the asylum, had another fit, with loss of speech; after this she grew feeble in mind, became dull and sleepy, was indifferent and forgetful; frequently put only bread on the table; complained of headache soon after the last fit; after the the third fit became helpless and speechless, but retained consciousness; after this was noisy and maniacal, at

times singing, laughing, crying; her appetite was good, but she lost in flesh; on admission was talkative and noisy; had hesitancy and thickness in speech, so that at times she could with difficulty be understood; talked like a person intoxicated; also marked complacency of countenance; said she was well and never enjoyed better health; gait unsteady; no change in pupils; was frequently maniacal and destructive, at other times laughing, crying or singing; her appetite was good and she usually slept well; the parietic attacks were frequent, and her speech became more disturbed. For a week previous to her death had paralysis of right side, which continued; deglutition was difficult; passed her excrement in bed; she gradually failed, and died paralyzed five months after admission.

Autopsy.—Skull-cap normal; dura mater adherent to skull-cap; subarachnoid serous effusion; meningeal vessels distended with blood; on surface of left hemisphere were two blood clots. Right hemisphere was much larger than the left, and all the convolutions were softened; left hemisphere was harder than usual, and gray matter very thin. Left lobe of cerebellum softened, right lobe indurated; pons Variolii and medulla soft.

Woman, age 48, single, good habits, native of New York; patient usually enjoyed good health till attack of insanity in 1845. In 1847 was admitted to the asylum; she had always been a nervous, excitable person, and considered eccentric; resided alone, because of her peculiar behavior no one would live with her; on admission was quiet, in fair flesh, showed evidences of having been insane for some time, was idle and retiring, irritable and seclusive for some years afterward; interested herself in sewing most of the time; developed delusions that she owned the asylum and was married; was usually

quiet, and continued in her ordinary health until about two years preceding her death, when she began to grow more feeble both in mind and body; she dabbled in water and was childish, working over her dresses very frequently. From this time she required constant care as a feeble old woman, but retained her delusions. After complaining of headache during the day she died suddenly in the evening.

Autopsy.—Skull-cap thin, dura mater firmly adherent at vertex; between dura mater and skull-cap, at the upper part of right parietal bone, a recent blood clot measuring two inches in length by one in breadth; vessels in frontal region pale and contained only serum—considerable subarachnoid effusion.

Thorax.—Old pleuritic adhesions binding right lung to walls of the chest, upper lobe of right lung contained a small abscess filled with pus.

Woman, age 50, widow, seven children, no hereditary tendency to insanity. Patient was said to have been insane for four weeks; nothing further was known of the case by the officer who accompanied her to the asylum. In office presented all the symptoms of general paresis; twitchings at the angles of the mouth, tremulousness of the tongue, hesitancy of speech, and unsteadiness of gait; her pupils were of unequal size; had delusions of wealth, said she owned the whole world; was serene, placid, and seemed to be perfectly happy; was thin in flesh, and complained of headache. For some days after admission she continued quiet; very feeble in both mind and body; had to be dressed and undressed; was stupid; ate fairly and usually slept well; two months after had a paretic seizure; from this time lost complete control of her sphincters; pupils contracted, tongue more tremulous, and increased hesitancy in speech, with great difficulty in protruding the tongue; had a

number of paretic seizures during the last two months. Died paralyzed four months after admission.

Autopsy.—Skull-cap normal. Dura mater adherent to arachnoid. Convolutions of cerebrum atrophied and softened; gray matter very thin; a number of apoplectic clots at junction of lower cervical and upper dorsal; vertebræ adherent to sheath of spinal cord.

Thorax.—About six ounces of serum in right pleural cavity; a number of calcareous deposits in right lung.

Woman, age 48; widow, two children; good habits; native of Massachusetts. Insanity not hereditary. Patient was unwell for about six years; suffered from headaches and umbilical hernia; at one time was very fleshy, weighing 300 pounds. The tumor, which was the size of a goose egg, became smaller about a year before admission, and a fistulous opening appeared which discharged constantly a muco-purulent matter. Symptoms of insanity developed about two months before coming to the asylum; was talkative, excited and incoherent in speech, suspicious of her friends and family, ate irregularly and was wakeful at night; threatened to kill her children. This was her condition on admission. She gradually grew feeble and was put to bed. Fistulous opening discharged fæcal matter and was offensive. On the fourteenth day after admission had a severe epileptic fit, and, on the day following, had three more. She took liquid food in small quantity and usually slept well. About two weeks after had another severe epileptic fit and became maniacal and violent. From this time she gradually failed, and after remaining in the asylum six weeks died.

Autopsy.—Head—skull-cap—cranial bones thin; dura mater adherent; about two ounces of serum under the

arachnoid; brain tissue, firm; number of cysts in choroid plexus.

Thorax.—Left lung firmly adherent to chest by old pleuritic adhesion.

Heart.—Pericardium contained one ounce of serum.

Abdomen.—At the umbilicus there was a soft tumor, which contained a portion of the intestine; evidences of old inflammatory action around the hernia, about five feet from the pyloric orifice of the stomach; the intestine was constricted, which was found to correspond with the tumor in the abdomen.

Woman, age, thirty-three; married; five children; native of New York; a sister had been insane. Patient had been married for seventeen years, and usually enjoyed good health. Last child was born about nine months previous to admission, after which she developed symptoms of insanity; was depressed and melancholy; this condition continued until two weeks before coming to the asylum, when she was maniacal and violent; tore off her clothing; was abusive and profane; this was her condition when admitted; her complexion was sallow; pupils widely dilated and eyes dry; she opposed care and took liquid food sparingly; usually slept well under influence of anodynes; the maniacal state continued during the day; she continued wild and excited until two days preceding death, which was in July, when she had an attack of double pneumonia, from which she died on the fourteenth day after admission.

Autopsy.—Skull-cap, normal; dura mater adherent to arachnoid. Choroid plexus contained large cysts; pineal gland large and pale; vessels of the circle of Willis atheromatous. Weight of brain forty-three and one-half ounces.

Woman, age 69; widow, mother of six children; native of New York; a sister had been insane. In 1863, patient had an attack of melancholia, and was in the asylum for two years; she was discharged recovered and remained well until 1869, when she had another attack; on admission was depressed and strongly suicidal; thin in flesh and anæmic; ate sparingly and slept irregularly; she had depressing delusions regarding her family, and had no appreciation whatever of her condition. She continued melancholy, though at times was more cheerful, until a day before her death, when she had an attack of peritonitis, from which she died, twenty-eight months after admission.

Autopsy.—Head.—Skull-cap, frontal bone nearly half an inch in thickness; dura mater attached to skull at vertex; meningeal arteries distended with fluid blood; dura mater adherent to arachnoid at many points by fibrous bands; convolutions of brain small over anterior portion of cerebrum; considerable subarachnoid effusion; vessels in all the membranes congested.

Thorax.—Pleural cavity contained eight ounces of serum; right upper lobe adherent to chest by firm fibrous bands; thick deposit of lymph over right lower lobe; lower lobe of left lung hepatized; pericardium contained four ounces of serum; marked fatty deposit along the course of coronary arteries; left ventricle contracted; right ventricle dilated with fluid blood; muscular walls softened.

Abdomen.—Cavity contained large amount of serum; under-surface of diaphragm covered with lymph of a yellow tinge, and other portions of the peritoneum thickened and deeply congested; the intestines and liver were bound to the peritoneum by fibrous bands. In the gall bladder was

found a gall stone which weighed 185 grains; it was smooth and round; kidneys were normal.

Woman, age 24; single, school teacher, good habits, native of New York. Patient had been teaching for twelve years previous to the attack; was always in delicate health, thin in flesh and anæmic, with a scrofulous diathesis; from childhood was nervous and hysterical; showed evidences of insanity for more than a year before coming to the asylum. Her friends stated that during the first six months she was confined to her bed in an apparently unconscious condition, and required constant care; after she aroused from this condition, became gloomy and depressed, expressed delusions of fear and suspicion regarding her family. On admission was thin in flesh, pale and anæmic; phthisis diagnosticated, and she had chronic ozæna. In spite of treatment she gradually failed; had slight cough, but did not expectorate; had no hectic and never complained of pain. Two weeks before death had paralysis of right side; from this time failed rapidly and died eleven months after admission.

Autopsy.—Skull-cap normal; dura mater adherent to the vertex; considerable serous effusion over cerebellum; convolutions of cerebrum atrophied.

Thorax.—Sternum spongy, and ribs fragile; firm pleuritic adhesions over right side; both lungs had a greenish hue; lower lobe of right lung firmly adherent to diaphragm; in left lung there were a number of small abscesses; the upper lobe of right lung contained a large abscess filled with pus.

Dr. JOHN P. GRAY, *Superintendent*:

I hereby present to you the following report of the pathological work done at the asylum during the past year.

There were twenty-four autopsies made since December, 1871, in all of which the brain and thoracic and abdominal viscera were examined. Of these twenty-four cases, eight were cases of general paresis, five of acute mania, six of dementia, two of melancholia, three of chronic mania and one of acute delirium following typhoid fever.

Of the eight cases of general paresis, six were men and two women; the oldest 64 and the youngest 33 years of age. In five cases there were eschars or ill-conditioned ulcers observed upon the surface of the body; the skull-cap was unusually thick in four cases; the membranes were adherent to each other in four cases; the arachnoid opaque in four and congested in one; a considerable amount of sub-arachnoid serous effusion was noticed in seven of the eight cases, and in two cases clots of blood were found upon the surface of the brain; in six of the eight cases there was more or less atrophy of the cerebral convolutions, and in one case embolism of the middle cerebral artery was accompanied by softening of the hemispheres; in this case two small cysts filled with clear serous fluid were found encroaching upon the brain substance; the weight of the encephalic mass (including cerebrum, cerebellum, pons and medulla) was taken in three cases; the heaviest weighed $48\frac{1}{4}$ ounces and the lightest $35\frac{1}{4}$ ounces, the average weight being $42\frac{1}{3}$ ounces; in five of the cases there was existing tubercular disease, or evidences that such disease had formerly existed as shown by cicatrices and cretaceous deposits in the lungs; in one case ossification of the mitral valve was found, and in three cases there was marked deflection of the transverse colon toward the symphysis pubis.

Of the five cases of acute mania, three were men and two women; the oldest 36 and the youngest 30 years of age; in one case several abscesses were found about the body, due to the presence of needles introduced into the tissues by the patient; in three cases the meninges were thickened and opaque, in three they were congested, in two they were adherent to each other, in one a clot was found in the longitudinal sinus, and in one, bony plates were found in the dura mater; in one case an effusion of pus was found on the surface of the hemispheres, in two there was effusion of lymph and serum, in two, clots were found on the surface and in one a considerable amount of sub-arachnoid serous effusion was observed; in one case the convolutions were of a rusty color and softened; in one there were depressed and indurated spots at the vertex; in one some of the convolutions were softened, while others were indurated and atrophied, and in one there was softening of the tubercular quadrigemina; in one case the arteries were atheromatous. The weight of the encephalon was taken in only one case, and was forty-one ounces; in two of the five cases the lungs were tuberculous, and in one which followed the puerperal state there was pneumonia and metritis.

Of the six cases of dementia, four were males and two females; the oldest was fifty-nine years of age and the youngest twenty-one. The skull-cap was unusually thick in two cases, and unusually thin in one. The meninges were adherent to one another in three cases; a clot was found in the longitudinal sinus in one case, and in one case in which the dementia followed or was associated with epilepsy, thick bony plates were found in the dura mater. In five cases there was considerable sub-arachnoid serous effusion; in one there was effusion of the plastic lymph both at the vertex and base of the cerebrum, and in one there was extravasation of blood at the vertex. In two cases there was atrophy of the convolutions; in two the gray matter was unusually thin; in one the convolutions were softened, and in one a number of cicatrices were found in the corpora striata. In one case there was marked atrophy of the left hemisphere, with corresponding atrophy and induration of the left optic thalamus. In one case there was atheromatous degeneration of the arteries at the base of the brain. The brain was weighed in three cases, the heaviest being forty-five and one-half ounces, and the lightest forty-three and one-half. In five of the six cases the lungs were tuberculous, and in two cases the heart was fatty. In two cases there was deflection of the transverse colon; and in one of these there was displacement of the stomach. Of the two cases of melancholia, one was male and one female. The oldest was seventy-four years and the youngest seventy-one years. In both cases the skull-cap was thick; in both cases there were extensive meningeal adhesions; in one case clots of blood and considerable serous effusion was found under the arachnoid, and in the second case a large clot was observed in the longitudinal sinus; in both cases numerous points of atrophy were found in the convolutions of the hemispheres. The weight of the encephalon was only taken in one case, and was forty-nine and one-quarter ounces. In one the vessels forming the circle of Willis were atheromatous. The lungs were tuberculous in one case; marked deflection of the transverse colon in one case, and in the other there was general peritonitis, caused by perforation of the gall bladder.

Of the three cases of chronic mania, two were males and one female; the oldest eighty-four and the youngest sixty-two years of age. In one case the skull-cap was thick, and in one unusually thin. There were meningeal adhesions and sub-arachnoid serous effusions in all three; in two cases clots of blood were found on the surface of the hemispheres. There was softening of the convolutions in two cases, and in the third the brain tissue was unusually pale. In one case there was softening of the corpus callosum and cerebellum, and in one sclerosis of the medulla. In one case the arteries at the base of the brain were atheromatous, and in one firm clots were found in both of the lateral sinuses. The weight of only one brain was taken, and found to be fifty-six ounces. In one case tubercular disease of the mesenteric glands was found, and in another there were evidences of tubercular disease of the lungs; marked deflection of the transverse colon in one case.

From the above condensed report we find that in every case there was some considerable disease of the brain or its membranes. The well-known connection between tuberculosis and insanity is well illustrated by the fact that out of twenty-four cases, fourteen of them presented evidences of tubercular disease of the lungs.

The peculiar deflection of the transverse colon toward the pubis, so frequently mentioned by authors upon insanity, was observed in seven of the twenty-four cases.

In all of the above cases the brain was submitted to careful microscopic examination, but the results obtained were so varied that I have found it impossible to tabulate the appearances observed in each case. Among the abnormal conditions revealed by the microscope were a granular fatty deposit in the enlarged perivascular sheath of the smaller vessels of the brain, a fatty degeneration of the nerve cells, an increased proliferation of the connective tissue, small effusions of blood from rupture of capillaries, microscopic miliary aneurisms (as described by Charcot), and many other lesions which I have not as yet been able to classify, and which must remain to be fully described in some future report.

While examining the brain of a female patient who died during an attack of sub-acute mania in August, 1871, I saw, for the first time, a peculiar lesion of the tissue of the brain and spinal cord, which I subsequently met with in a number of cases, not only of acute mania, but also of other forms of insanity. These sections of the tissue, previously hardened in absolute alcohol, were made and colored with carmine, rendered transparent with benzole, and mounted in balsam. Examined by transmitted light, they could be seen with the naked eye to be studded with small white spots, which were very numerous and of variable size. Under the microscope these spots presented a granular appearance, and many of them contained a number of elongated crystalline bodies. They did not imbibe the carmine solution to the same extent as the surrounding healthy tissue, and were of a pale greenish color. Their edges were not well defined, but the deposit seemed gradually to merge into the normal brain substance. They were circular or oval in form, and varied in size from one-twentieth to less than one five-hundredth of an inch in diameter. In some instances the nerve fibres seemed to pass through them, but as a general rule they appeared to be destroyed. These bodies occupied the white substance of the brain, none of them being found in the gray matter of the convolutions.

The following table gives the sex, age and form of insanity in the cases where the above deposits were observed;

| | | |
|----|------------------------|------------------|
| 1. | Female, 57 years | Sub-acute mania. |
| 2. | Male, 28 years | Dementia. |
| 3. | Male, 40 years | General paresis. |
| 4. | Male, 45 years | General paresis. |
| 5. | Female, 68 years | Chronic mania. |
| 6. | Female, 37 years | Chronic mania. |
| 7. | Male, 30 years | Dementia. |

Last year my attention was called to another form of deposit in the brain tissue, which differed from the preceding in that the spots were smaller and their outline more distinctly defined. These deposits were very dense and white; they did not imbibe the coloring from a carmine solution, and contained none of the crystalline bodies observed in the first variety. They appeared to be surrounded by a capsule of condensed connective tissue, and none of them were traversed by nerve fibres, these latter being pushed to one side. They could be easily detached from the healthy tissue by teasing out the specimen with a needle, and in one section, which was accidentally torn, the morbid deposits could be seen protruding from the torn edge in the form of rounded projections.

The following is a list of the sex, age and form of insanity in the cases where this second form of deposit was found:

1. Male, 25 years..... Sub-acute mania.
2. Male, 62 years..... Chronic mania.
3. Male, 46 years..... Paroxysmal mania.
4. Female, 33 years..... Acute mania.
5. Male, 52 years..... Dementia.
6. Male, 27 years..... General paresis.

In submitting this condensed report of some of the work done in the pathological department of the asylum, I regret that it is not more worthy of the material which you have placed in my hands. I hope, however, that it may serve as a commencement of a series of observations and investigations which cannot but throw more light upon the pathology of insanity.

Very respectfully,

EDWARD R. HUN.

The Matron reports the following articles made in the house during the year, in addition to the mending:

| | |
|-------------------------------|--------------|
| Towels | 971 |
| Sheets | 798 |
| Pillow cases | 724 |
| Shirts | 541 |
| Handkerchiefs | 537 |
| Dresses | 520 |
| Drawers, pairs | 370 |
| Aprons | 312 |
| Skirts | 288 |
| Wrappers | 198 |
| Chemises | 168 |
| Cupboard spreads | 81 |
| Comfortables | 68 |
| Curtains | 66 |
| Night dresses | 31 |
| Table cloths | 30 |
| Hose, pairs | 25 |
| Bureau spreads | 24 |
| Stand spreads | 24 |
| Whole number of articles..... | <u>5,776</u> |

There have been made in the tailors' shop the following named articles:

| | |
|-------------------------------|------------|
| Straw bed-ticks | 100 |
| Overalls, pairs | 75 |
| Overshirts | 27 |
| Full suits | 4 |
| Drawers | 3 |
| Pants | 2 |
| Vests | 1 |
| Whole number of articles..... | <u>212</u> |

The steward makes the following report of the farm and garden :

| | |
|---|-------------|
| Apples, 16 bushels, at 75 cents | \$12 00 |
| Asparagus, 426 bunches, at 8 cents..... | 34 08 |
| Beans, butter, 18 bushels, at \$3..... | 54 00 |
| Beans, dry, 26 bushels, at \$2.50..... | 65 00 |
| Beans, Lima, 13 bushels, at \$3..... | 39 00 |
| Beans, string, 18 bushels, at \$2 | 36 00 |
| Beets, 750 bushels, farm, at 40 cents | 300 00 |
| Beets, green, 564 bunches, at 4 cents..... | 22 56 |
| Beets, 1,164 bushels, garden, at 40 cents | 465 60 |
| Cabbages, 2,683 heads, at 10 cents | 268 30 |
| Carrots, 743 bushels, at 40 cents..... | 297 20 |
| Cauliflowers, 382 heads, at 12 cents..... | 45 84 |
| Celery, 6,310 heads, at 6 cents..... | 378 60 |
| Corn stalks, 45 tons, at \$4..... | 180 00 |
| Corn, green, 142 bushels, at \$1.50..... | 213 00 |
| Cucumbers, 36 barrels, at \$4..... | 144 00 |
| Cucumbers, green, 60 bushels, at \$2..... | 120 00 |
| Hay, 135 tons, at \$20 per ton..... | 2,700 00 |
| Lettuce, 2,468 bunches, at 6 cents | 148 08 |
| Milk, 113,608 quarts, at 6 cents..... | 6,816 48 |
| Oats, 60 bushels, at 65 cents..... | 39 00 |
| Onions, 221 bushels, at \$1.50..... | 331 50 |
| Onions, green, 560 bunches, at 10 cents..... | 56 00 |
| Parsley, 64 bunches, at 6 cents..... | 3 84 |
| Parsnips, 132 bushels, at 40 cents | 52 80 |
| Peas, 10 bushels, dry, at \$3..... | 30 00 |
| Peas, 134 bushels, green, at 75 cents | 100 50 |
| Pie plant, 4,635 bunches, at 6 cents | 278 10 |
| Potatoes, 2,812 bushels, at 40 cents..... | 112 48 |
| Salsify, 500 bushels, at 75 cents..... | 375 00 |
| Squash, 3,478, Hubbard, at 20 cents..... | 696 60 |
| Squash, 312 summer, bushels, at 6 cents..... | 18 72 |
| Tomatoes, 539 bushels ripe, at \$1... .. | 539 00 |
| Tomatoes, green, 364 bushels, at \$1.... | 364 00 |
| Turnips, 438 bushels, at 40 cents..... | 175 20 |
| | <hr/> |
| | \$15,511 48 |

STOCK ON FARM.

Eleven horses, two yoke of oxen, two bulls, thirty-one cows, two heifers, one calf, ninety-nine hogs.

| | | |
|---|------------|------------|
| Amount received for pigs and pork sold..... | | \$244 19 |
| Pork slaughtered for use of house | 1,653 47 | |
| Value of swine on hand | 1,175 90 | |
| | | <hr/> |
| | | \$3,173 56 |
| Value of swine on hand Dec. 1, 1871..... | \$2,696 00 | |
| Amount paid for feed 1871..... | 402 11 | |
| | <hr/> | 3,098 11 |
| | | <hr/> |
| | | \$75 45 |
| | | <hr/> |

During the year services have been held in the chapel, by Rev. Mr. Miller, of the Presbyterian church, of Philadelphia, and Rev. Mr. Brown, of Utica, Rev. Dr. Ayrault, of the Episcopal church, of Oxford, N. Y., and Rev. Mr. Hagar, of Utica, Rev. Drs. Patton and Corey, of the Baptist, and Rev. Mr. Hartley, of the Reformed church of Utica. These gentlemen have kindly supplied the pulpit in place of the Chaplain, Rev. W. T. Gibson, D. D., in times of his absence. To Dr. Kempster, of the asylum staff, and Rev. Mr. Whitfield, of Utica, we are indebted for several magic lantern exhibitions.

Mr. Forrester, of Utica, and Mr. Meech, of Buffalo, with their respective dramatic companies, gave entertainments which afforded much pleasure to the patients. Mr. William Carr, of Scotland, gave two readings of choice selections, and Prof. S. A. Morse, of Salem, Mass., favored us with a lecture upon "Animals, how they walk." To all of these gentlemen we desire to express our thanks for the amusement and instruction which they afforded our household.

Mr. John E. Williams, of Aurora, N. Y., sent a quantity of grapes, which were distributed to the patients.

From the Messrs. Van Heusen, Charles & Co., of Albany,

the institution received a present of a stereopticon, and Miss D. L. Dix presented twenty-five stereoptic views.

To the Hon. Nelson K. Hopkins, Comptroller, and Hon. G. Hilton Scribner, Secretary of State, we acknowledge our indebtedness for packages of newspapers sent from their respective offices. These, with the exchanges we purchase from the Utica city papers, afford a large amount of newspaper reading.

There has been no change in the officers during the year. I desire to record their fidelity, and the fact that they have all zealously co-operated in carrying out such measures as have been necessary for the highest welfare of the patients and the best interests of the public.

The same attendants and employes, with few exceptions, remain in all chief places of responsibility, and have rendered willing and valuable services. It is highly important to the efficiency of an institution to retain in its service experienced employes, and in this respect this asylum has been very fortunate for many years. It has also furnished many trained persons for other institutions of the State.

I desire to thank you, gentlemen, for uniform personal courtesy, and the generous aid given me at all times in the conduct of the institution. I appreciate the great responsibility of the trust confided to me and need your counsel. Committing the institution with all its great interests to the merciful care of an overruling Providence, whose guidance in all our duties we reverently seek, we enter upon another year.

JOHN P. GRAY.

APPENDIX.

Reference to laws passed by the Legislature relative to insane persons :

Part 1, chapter 20, title 3, art. 1 of the Revised Statutes, "Of the safe keeping and care of lunatics."

Session Laws, 1842, chapter 135, "An act to organize the State Lunatic Asylum, and more effectually to provide for the care, maintenance, and recovery of the insane."

Session Laws, 1850, chapter 282, section 2, relating to sending indigent insane persons, not paupers, to the asylum.

Session Laws, 1851, chapter 446, amending the law respecting indigent insane persons.

"The county superintendents of the poor of any county, and any overseers of the poor of any town to which any person shall be chargeable, who shall be or become a lunatic, may send such person to the lunatic asylum by an order under their hands."

The order of a county judge secures the admission of indigent persons, not paupers ; in which order it must be stated that the applicant became insane within one year prior to the date of the order. (Section 26 of act of 1842, and section 2 of chapter 282, Session Laws, 1850.)

The object of this humane provision is, undoubtedly, to extend the benefits of this institution to persons with limited means, whose insanity is of a recent date, and therefore probably curable, and, if recovered in the space of two years, restoring them to their families and their property unimpaired, and saving them from the paralyzing influence upon their future life of finding themselves, by the loss of health and reason, reduced to beggary. Patients sent through this channel generally supply their own clothing and pay their own traveling expenses to and from the asylum.

Patients supported by their friends are received without any other paper than certificates from county or bank officers, or other prominent individuals, of the ability of those who become bound for their support in the asylum, to meet all expenses incurred.

The form of agreement entered into by the persons or sureties who become bound for the patient admitted, is as follows:

“Whereas, ———, of the town of ———, in the county of ———, an insane person, has been admitted as a patient into the New York State Lunatic Asylum at Utica; now, therefore, we, the undersigned, in consideration thereof, bind ourselves to Edmund A. Wetmore, treasurer of said asylum, to pay to him and his successors in office, the sum of ——— dollars and ——— cents per week for the care and board of said insane person so long as he shall continue in said asylum, with such other charges as may be occasioned by his requiring more than ordinary care and attention, and also to provide him with suitable clothing and pay for all such necessary articles of clothing as shall be procured for him by the steward of the asylum, and to remove him from the asylum whenever the room occupied by him shall be required for a class of patients having a preference by law, or whenever he shall be required to be removed by the managers or superintendent; and we also engage to pay all expenses incurred by the managers or superintendent in sending said patient to his friends in case one or either of us shall fail to remove said patient when required to do so as aforesaid; and if he shall be removed at the request of his friends before the expiration of six calendar months after reception, then we engage to pay board for twenty-six weeks, unless he should be sooner cured, and also to pay, not exceeding fifty dollars, for all damages he may do to the furniture or other property of said asylum, and for reasonable charges in case of elopement, and funeral charges in case of death; such payment for board and clothing to be made semi-annually, on the first of February and August in each year, and at the time of removal, with interest on each bill, from and after the time it becomes due.

“In witness whereof, we have hereunto set our names, this the ——— of ———, in the year 187—.”

This agreement, or understanding, is generally signed by near relatives or other friends of the patient, or legal guardians, if any

such there be, at or prior to the time of admission, or subsequently, upon the deposit, on the admission of a patient, of a sum of money sufficient to secure its execution.

“When an insane person, in indigent circumstances, shall have been sent to the asylum by his friends, who have paid his bills therein for six months, if the superintendent shall certify that he is a fit patient, and likely to be benefited by remaining in the institution, the supervisors of the county of his residence are authorized and required, upon an application, under oath, in his behalf, to raise a sum of money sufficient to defray the expenses of his remaining there another year, and to pay the same to the treasurer of the asylum. And they shall repeat the same for two succeeding years, upon like application and the production of a new certificate each year, of like import, from the superintendent.”

We regret to be obliged to call the attention of county officers to the following law, which is too frequently overlooked or disregarded :

“All town and county officers sending a patient to the asylum, shall, before sending him, see that he is in a state of perfect bodily cleanliness, and is comfortably clothed and provided with suitable changes of raiment, as prescribed in the by-laws.”

We request, especially, that patients brought to us from county-houses be clean and free from vermin.

All patients require at least two suits of clothing, and several changes of under garments. Most of the patients go out regularly, and consequently require clothing suited to the season. For males, great-coats and boots are required in winter; shoes answer in summer; slippers are worn in the house. Females also need ample clothing for walking and riding in the winter.

The supply should be liberal when it can be afforded. All clothing is marked with the name of the patient to whom it belongs, and much pains are taken to have it kept in good order and repair.

The removal of a patient should not be attempted while laboring under severe bodily disease, as fevers, erysipelas, large and dangerous wounds or sores, consumption, etc.

In conveying a patient to the asylum, let it be done by force rather than by deception. Truth should not be compromised by planning a journey to Utica, or a visit to the asylum, and when

there, suggesting the idea to the patient of staying, while his admission was already decided upon; nor should patients be induced to come and stay a few days to see how they like it, under the impression that they can leave at pleasure. Such treachery not only destroys confidence in friends, but also, too often, in us, by the seeming conspiracy to which we are supposed to be a party, than which there can scarcely be a greater barrier to improvement. The patient should be brought by an intelligent and intimate acquaintance, who will be able to give a minute history of the case, or written account should be transmitted. In the latter should be stated the name, age, married or single, number of children, occupation, degree of education, profession of religion, habits, nativity, residence, predisposing and exciting causes. Here give a minute history of the patient from youth up, temperament, peculiarities, disposition, etc.; also the cause supposed to have affected the patient immediately preceding the attack; state what relatives, near or remote, are or have been insane or peculiar; also what disease the patient has suffered from, fits, skin diseases, dyspepsia, constipation, piles, ulcers, etc. Give the date of the attack, going back to the first noticeable disturbance, no matter how slight; also the duration of the more marked and decided symptoms, the number of attacks (if this be not the first), and, if ever before admitted, the number of admissions to this asylum, and how complete was the recovery in the intervals between the attacks; state fully the condition of the patient at the time of admission; whether suicidal or homicidal; whether he eats, sleeps, strikes, breaks, destroys, or is noisy or inattentive to personal cleanliness, and whatever else may occur to the friends, likely to be useful to us.

It is desirable that application for admission be always made before the patient is brought to the asylum, in reply to which any desired information will be cheerfully furnished. All correspondence about or with patients should be post paid, and addressed to Dr. John P. Gray, Superintendent of the State Lunatic Asylum, Utica, N. Y.